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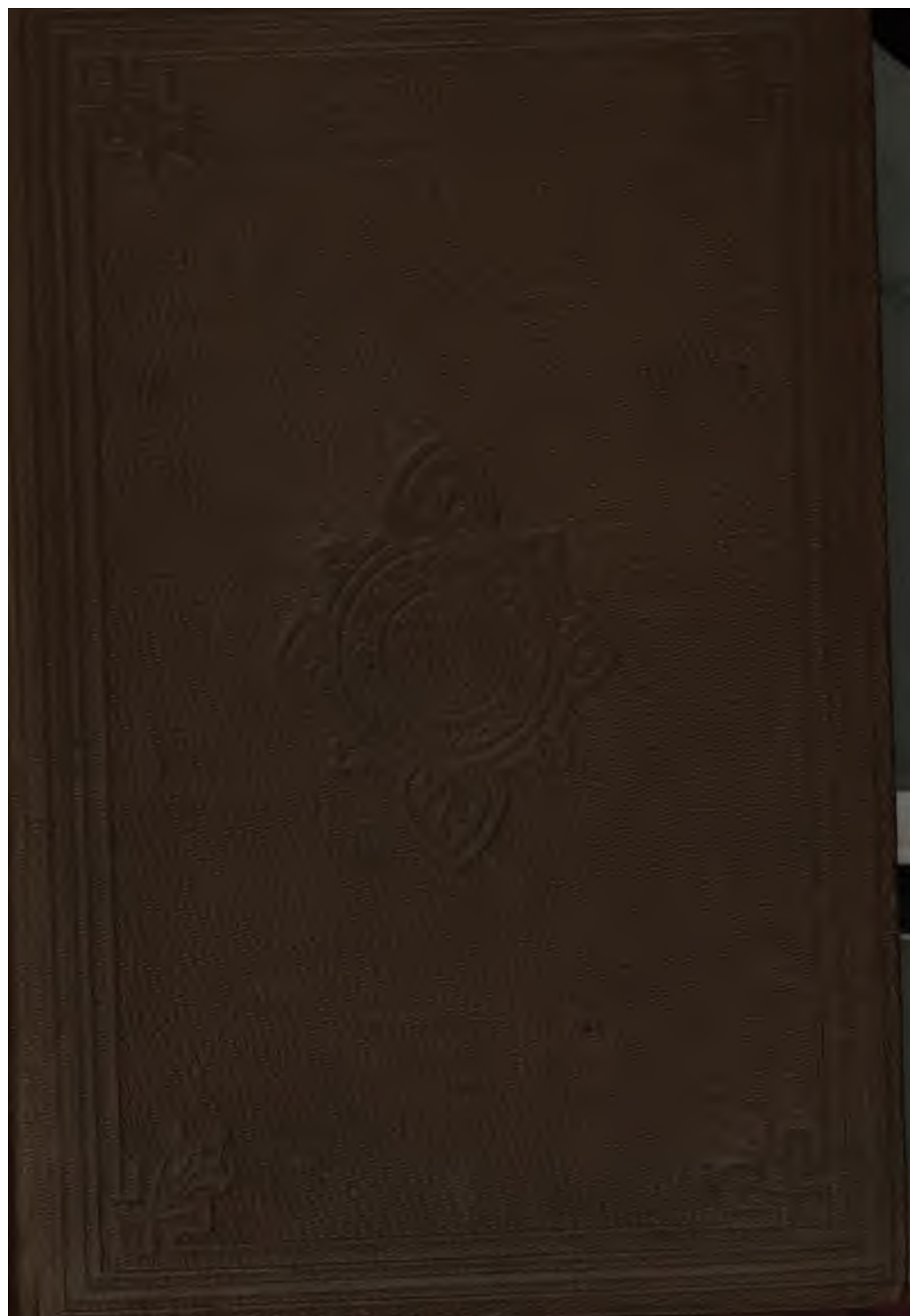
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LECTURES ON THE ATOMIC THEORY

AND

ESSAYS SCIENTIFIC AND LITERARY

BY SAMUEL BROWN

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## THE FINITE AND THE INFINITE.

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IT is the inalienable prerogative of man to pray to God. It is the royal condition on which he wears the crown of Nature ; although the condition is ill fulfilled, and his glory is therefore dim. In every clime and in every age, however, he builds himself an altar. Nor is there any man, be his metaphysical creed what it may, or be he ever so far from God in the spirit of his mind, but sometimes utters himself in willing or involuntary prayers. Superstitions, holidays, pagodas, temples, mosques, images and pictures, churches and chapels, even amulets and charms, do all attest the fact that the distinguishing attitude of man is on his knees. Curses themselves are but inverted prayers ; like the images of things within the eyeball, which the 'eye within the eye' restores to their real position in the act of vision. The common sense, or public reason of humanity, undoubtedly declares its conscious allegiance to Him who cannot be adequately named. Even if it is not possible to generalise a philosophy of man from the principles of common sense, as they are called, it is yet inconceivable

that any one should reject the essential fact which is folded up within every universal intuition of the race. Nor shall anybody shut his eyes to what all men see, without ceasing in some proportion to be a man. It is the province of philosophy to analyse these primary beliefs as the ultimate facts of our nature, and to reconstruct them upon their rational foundations ; and only a very refined philosophy shall ever accomplish so great a task : but it is the part of every one to show them forth in their living reality, whether he philosophise on them or not. Who can refrain with impunity from what all men strive to do ? The manner of doing this or that undeniably human thing will vary, indeed, with the individual and the day ; but the essential thing itself shall always remain to be done. The better cultivated man shall become, he will accordingly disentangle prayer of its superstitions, adhesions, and hindrances ; but he will only pray the more, the more he is set free.

It is this great and patent fact of prayer, in truth, that puts a difference, not only of degree but also of kind, between man and the animal kingdom. It constitutes him a kingdom in himself. The paramount nature of this the highest function of the human being, is vastly increased in apparent significance, when it is considered that there stand in necessary interdependence with it his capability of a progressive education or history, his power of inventing sciences, his apprehension of an infinite beauty in the universe, and his endeavours to reproduce it in the finite forms of art, and even his sense of humour ; for all these things are inseparably connected with the primitive fact of the conscious relation of man to God. That relation is poorly expressed by that of a creature to his Creator, for the most earthly and inadequate conceptions of fabrication are invariably insinuated



into the mind by such an image, even when the poet and his poem are the members of the similitude. It is liker the relation of a child to his father, and that most pathetic of all figures of speech is the favourite of the world. Be these things as they may, however, it is indisputable that, but for the principle involved in the practice of prayer, there could never have existed so glorious a phenomenon as the history of nations.

That principle is the being of God in the state of personal relationship with man. It is neither through the telescopic complication of the *a priori* demonstration, nor under the microscope of the *a posteriori* one, that man beholds his God. He sees him as he is seen, eye to eye. It is by intuition, not by tuition. It is by faith. It is by an aboriginal law of his nature. Let the process be entitled as it may, the beholding is not mediate. It is more immediate than bodily sight. The code of nature and of spirit, of sensuous appearances, and of ideas, is the manifold republication of 'the open secret,' indeed; but it is written in characters of which the inner man of Man already possesses the cypher, else they would never have been interpreted by him, any more than by the beasts that perish.

It may not be impossible to pierce the hidden process of this direct perception of the Almighty. It were exceedingly desirable to do so in an age which openly displays its proclivity to ignore the fact of immediate insight altogether, even while it is by an act of such insight that it beholds and therefore believes in that world of sensation, in which it nestles itself so closely as to blind its upper eyes. The devout believer, also, who still descries Jehovah and adores, might be relieved of the doubt and dimness, with which the spirit of the times may perhaps have overfilmed his eye, if the

rational ground of his belief were made clear to him. It is likewise a beautiful problem in philosophy to solve, and an honest endeavour to solve it is incapable of doing harm. It must not be forgotten, however, that if the attempt be attended with failure, not only at this time and in these hands but for ever, the primordial fact continues unaltered and unchangeable. Let it also be understood that no claim is made to absolute originality in the following paragraphs any more than in the foregoing ones. It is said that Ferguson discovered many things in astronomy that were known before: says Emerson, 'the better for him.' For my own part, on the other hand, I must remember that this Essay is not intended only for the philosophical student, but likewise for all such readers as are willing to assume the task of serious thought concerning so mysterious a subject.

I. The philosophy of man requires a fixed point of departure: just as Romanism demands an infallible Church, supposed to be embodied in the Pope, or in the Pope and council; or Protestantism an infallible book, discovered in the Bible. The fact of self-consciousness is, by the unanimous consent of philosophers, that point, nor can any other one be conceived. It is the fact that I call myself Me—not meaning my body, for that is a part of nature, the entity of which is questionable but unquestioned at this the starting-post of the inquiry; and not meaning my soul, for neither is that an object of consideration, as yet, in this quite abstract investigation; but Me, in its integrity and simplicity, whatever it may eventually be found to involve. Let me suppose myself unsolicited by any sensations, undisturbed by any finite conceptions, not possessed by any other idea, but in a fit of absolute abstraction inly pro-

nouncing myself to be Me ; and I shall know the interior meaning of that concrete and therein imperfect saying of Descartes' : *Cogito, ergo sum*—I think, therefore I am. Now it is the idea of that proposition, and not the proposition itself, with which the reader is at present concerned. It is the pure, unspoken Me that is the first object of analysis in the philosophy of man.

II. What, then, is involved in the cognition Me, thus subsumed to be known without mediation, intuitively, by faith, or however else it may be phrased ? The question resolves itself into another one. It is an axiom in pure philosophy—for the present inquiry belongs to mixed or applied philosophy\*—that each idea involves its opposite. The idea of beauty involves that of deformity ; unity, multiplicity ; finitude, infinitude ; and so forth.† There are, indeed, three terms in the pure idea : beauty, deformity, and the term whereby they are mutually related ; and so forth. These three terms of the idea are the thesis, antithesis, and mesothesis of Aristotle. This may be found again in one's observed experience. Entertain the idea of beauty, and simultaneously one entertains that of deformity, together with the relationship of these opposing terms. Deformity attends beauty, in and for the mind, as if it were a satellite irrevocably bound over to it by the law of gravitation ; if a figure of speech be admissible in such a discussion. But it is to be especially noticed that they are not two ; nor yet are they three, counting the middle

\* This is the same difference as there is between a question in pure geometry and one in mixed or applied geometry, such as optics or astronomy.

† The parallelism of the pairs is destroyed throughout this essay, and that on purpose. It is in order to avoid pronouncing even an implicit judgment on the question as to which is the positive, and which the negative pole, so to speak, of the several pairs—an inquiry of vast moment.

term. They are truly one. They are one idea, infolding two polar elements, beauty and deformity; and the difference of the two constitutes the third and mediating particular of their essential unity in the eye of reason.

This trinity of ideas is also true of things. There is the earth, the moon, and the force that binds them together as a veritable unit revolving round the solar centre as truly one, and not as two. Sun and planet; oxygen and hydrogen made one in water by the force of affinity; the electrical machine, the galvanic battery, and the magnet, with their positive and negative poles, and the equally essential points of indifference between these poles; man and woman; soul and body; are all illustrations of this law. Three-in-one, in fine, is the formula of all thought. To quote the expression of Cousin, 'It is the law of the Eternal Reason.' This logical triad has even been proclaimed abroad, by certain speculators, as the sum and substance of the Christian Trinity. It is one of the purposes of the present investigation to show that never yet did the heart of man love and adore an abstraction so impersonal. It is a libel alike upon God and upon humanity, to say otherwise. No, this universal formula, true and beautiful though it is, is not He on whose pitying fatherhood we rely, upon whose compassionate brotherhood we lean, and for the comfortable comings of whose Spirit we wait. It is only His pale shadow flitting through that universe, of which every man seems to himself to be the centre. Alas, that it should ever have hindered the eye of the philosophical visionary from beholding the unspeakable essence that is beyond! That this wide law is embodied in a thousand thousand faint and finite adumbrations of the Divine Mystery, flowing everywhere around as well as within us, is truly a glorious circumstance. The Mussulman

is bound by his Bible, or Koran, not to trample under foot the smallest scrap of paper lying on the way, nor yet to pass it by with heedless step ; but to lift it up with the hand of reverence, lest the name of Allah be haply inscribed upon its honourable tissue. And well might the Christian student of Nature devoutly wish his mind and heart to be so penetrated and quickened by this idea of the trinitarian constitution of every phenomenal unit in creation, that it should become impossible to gather a flower, to watch the lapsing of a river, to note the ebbing and the flowing of the tides, to gaze into the heavens, and far less to look into the unfathomable eye of an immortal brother, without perceiving the name of his true God written within and over them all. It is as if the wonder-working word of the Almighty Maker had come whispering everywhere through the hollow of immensity, on that unrecorded day in which He spoke the universe into existence, revealing to the opened ear of science the secret of the triune Spirit whence it leapt. Almost without a figure, the whole of Nature, and not the spiral nebula alone, is but one vast, many-winding, auroral, beautiful yet mysterious shell, brought hither in the beginning from the margent of the Divine Infinitude of Will : and, when the much-experienced heart of man will listen and believe,

‘ Pleased it remembers its august abode,  
And murmurs as the ocean murmured there.’

But, to return from this digression, it is evident that the question stated at the beginning of this subdivision of the argument is resolvable into this other one : What is the antithesis of Me ? What is the opposite, without which the idea of Me cannot subsist ? What is that second term which, through the mediation of a third one, is essential to the unity of Me ? The idea of Me is,

properly speaking, not an idea at all, but only the half of one; and the momentous question is, What is the other half? That half discovered, the medium of their unity will not be far to seek.

III. It is obvious that a possible definition of deformity is non-beauty; of multiplicity, non-unity; and so forth. Whatsoever is not beautiful is certainly deformed; whatsoever is not one is many; but that only on the implied or expressed condition that reference is had to these several ideas, those of beauty and unity namely. Non-beauty is, accordingly, by no means the philosophical definition of deformity except on such a condition; that is, except the speaker refer to the idea of beauty. This will be at once apparent in an instance or two. The number one is non-beauty, quite as distinctly as deformity is non-beauty, but One is not deformity. Justice is non-beauty also, but it is neither deformity nor one. Beauty is non-unity, but it is not multiplicity on that account; and so forth.

IV. Yet certain of the elaborators of the philosophy of Kant have evolved non-Me from Me. They say that the Ego involves the non-ego. In other words, they put it upon their disciples that self-consciousness implies the recognition of the universe. They inculcate that the ultimate analysis of the Me gives the individual Ego and the universal non-ego as its necessary factors. I know myself to be, and therefore also that which is not myself. In the very act or idea of saying I am myself, I differentiate myself from, I put myself over against, somewhat that is not myself. My universe is resolved by my very first act of individual life, namely, self-consciousness, into Me and non-me. Such, then, is this famous analysis in brief. The sophism which it contains is abundantly apparent after what has been said in the last subdivision

of the present argument. Non-me is no more the logical antithesis of Me than non-beauty is that of beauty, or than non-unity is that of unity.

V. What then is involved in Me? What is the antithesis, logical opposite, or polar community of Me? It is THOU. The idea of Me is grounded in being-and-doing, and its true antithesis must also be grounded in being-and-doing. It is not figure-me, nor measure-me, nor number-me. It is person-me. Its logical opposite must therefore consist in the idea of person-somewhat, or rather somewhom; just as number-one or measure-finite finds its antithesis in number-many or measure-indefinite. The true and inalienable complement and consentaneous opposite of Me, then, is PERSON-THOU. It is Thou, and not he or she, because these not only have the superadded accident of sex, and are therefore not the pure antithesis of the sexless Me, but also because they are essentially Thous themselves. He or she is Thou, spoken of; Thou is he or she, spoken to. Philosophically speaking, there are only two persons in grammar.

VI. Lastly, and most gravely of all: Whatsoever has yet been advanced is predicable only of pure Me and Thou contemplated as ideas. But in that Me from which the argument arose, in the Me of a veritable man, there is more than Me in its purity. In the self-consciousness of thee, or me, or our neighbour, there is the consciousness of finitude, what else soever there may be. Finite-me is the actual object to be unfolded, and it involves the Infinite-thou. Man cannot be truly conscious of the finite-me without being simultaneously cognitive of the Infinite-thou. The Infinite-thou stands everywhere over against the finite-me for ever. THOU GOD SEEST ME.



Such is an analysis of the genuine and unfallen self-consciousness of man, and it seems to exhibit the rational ground or secret process of that sacred intuition, whereby he beholds Him whom no man hath seen or can see with the eye of sense or that of the finite understanding. Living so much in the world of sensations, and so exclusively familiar with conceptions generalised from the phenomena of that world, as we are necessitated to be by the particular phasis of historical development through which the race is now passing, we do not readily apprehend the reality of philosophical analyses of this sort. The very objects of such analyses are for the most part as unsubstantial as shadows before our eyes. Certain of the aboriginal and indestructible intuitions of humanity are darkened within us by reason of the excessive predominance of certain others, which are equally indestructible and aboriginal. It is by direct insight that we see, know, and believe in the external world; but we see it too palpably, we know it too sensuously, and we believe in it too exclusively. We suffer it to oppress us. It obtrudes itself upon our whole man, and it crushes everything within us but the organs whereby it seizes us. Its innumerable phenomena unite with a multitude of scientific conceptions deduced from them, first to inveigle and then to rule us. They are a genuine ochlocracy, and soon tyrannise over us. Hence we have almost forgotten God. The mob of Nature has dethroned and banished Him; say rather, they have banished us. We live away from Him, and remember little more than His antique and venerable name, the only thing that might have been forgotten without woe. But He is not far off: He is waiting to be gracious.

It must be believed, indeed, by every one who recog-

nises the government of God, that it behoves mankind to pass through this characteristic stage of ongrowth. It is necessary for the individual also who belongs to the present epoch. He must wrestle a long night with this Briareus and his hundred hands, and refuse to let him go until he obtain his blessing. He must wholly learn all that matter and materialism can teach him. The man who does not go through this experience is by no means the son of his time. There are many who exemplify it without ever knowing they are doing so, and consequently without ever leaving it behind. These over-embodied spirits do truly and altogether belong to the present time.

But the individual man both may and often does outstrip the race, and that in all centuries. So soon as philosophical culture, a gracious disposition of nature, or the inspiration of heaven shall have shown one the secret of epochal development, and displayed the Ideal of Man, he will irresistibly aspire anew. He will unconsciously, if not with knowledge, disown his age the father of his mind, and his country the mother of his heart. He will strive towards the universal development of human nature within himself, putting forth every germinal bud of his soul to the solicitation of all the suns. He will belong to no nation and no time. He will be man, and yet he will likewise be himself. This is the genesis of the poet, the sage, the saint; a sacred *processus e latente*, which has never been more than approximated in the actual history of the Vatican. No Swedenborg or St. Paul, no Kant or Plato, no Shakspeare or Homer has ever touched this glowing zenith of the soul.

But there is another way in which a number of people may be before their age, the natural or organic one.

Age passes gradually into age. The morning rises on the night in forerunning streaks of purple. Particular minds begin to initiate the future epoch in the bosom of the present. Accordingly, to say nothing of Spinoza and Leibnitz, or of Kant, Fichte, Schelling, and Hegel in Germany; it may be remarked that Cousin in France, and Coleridge in Britain, have respectively headed a small but strenuous opposition to the predominant naturalism of the present historical epoch.

History proceeds by antagonism. Naturalism engenders transcendentalism. These children of the new light are accordingly so many shapes of the idealist. The passing age has long been and still is occupied with sensations, and with those general conceptions or natural laws which are derivable from the sensuous life. The new scholars, on the other hand, are possessed by ideas and conversant with such general conceptions as they are able to deduce from the ideal life. Apart from whatsoever vatic men may possibly be extant amongst us, and apart from the residue of a bygone age, yet lingering in the world, the men of the present time are divisible into two great classes. There is the very large one, which properly constitutes the actual time; and there is also the very small one, which announces and represents the age which is to come. The former are sensationists, and the latter idealists, in the senses in which these words have already been defined. They are the genuine opposites of one another, but they are not yet brought historically into unity by the mediation of a third. They still exclude one another. The sensationists utterly ignore and reject the idealists as insane and dangerous; while the latter despise the men of the day as drivellers. It is only here and there in Coleridge, and a little more frequently in Emerson, that

there can be perceived any traces of those 'organic filaments,' which are destined to weave them into one ; but the ulterior development of these living threads is relegated to the age beyond the next. Transcendentalism must first be exhausted by the race, as well as by such individuals as constitute the vanguard and forlorn-hope of humanity. The cup of Tantalus must be drunk at for many a weary day, as soon as that of Circe shall have been drained to the dregs.

The man of ideas is certainly nearer to God than the man of sensations can ever be ; yet most of the idealistic schools have assuredly sublimated their notion of the Deity into a sheer abstraction of the mind. It is the tendency of the sect ; that is, of man percurring this distinctive phasis of his earthly existence. Ideas, and those conceptions which descend from ideas properly so called, are apt to overmaster and unman the idealists, somewhat in the same manner as sensations and ascenden-  
tental generalisations have overcome and animalised the naturalists. The latter are prone to neglect and flout the human act of prayer just like their predecessors in the school. This unhappy proclivity proceeds in both cases from one cause, or rather from the same negation of a cause. It is owing to the absence of the holy personality of Jehovah from before their interior eye. It is because they have both alike extinguished or lost that inborn instinct of humanity by and in which God looks upon them face to face. Once lost, the ascenden-  
talist cannot find it again, for his inductive method is incompetent to the task ; and the philosopher, properly so called, has not yet recovered it as a philosopher, for his analysis of self-consciousness has hitherto been im-  
perfect, as appears in what has been said above. Prone to idealism, but embracing Nature also in my view, I

have in the foregoing paragraphs first held by the Theopathic sentiment or Godward intuition of the race, like Jacobi, Lamennais, and some of the common-sense schoolmen ; and then endeavoured to make a new analysis of self-consciousness, in which the Infinite Person of the Ineffable appears as the inevitable opposite of every finite Me in the world.

Those readers, however, who are unpractised in the sort of dialectics that has been employed in the demonstration referred to, will scarcely be able to feel the reality of the analysis in which that demonstration consists. They will probably be distrustful of it. It may sound like a juggle of words in their ears. Yet it is possible that it is not only the very truth, but also the sole philosophical ground of appeal to 'the nations that forget God.' We say the only philosophical foundation, because there always remains the cumulative pleading of science in favour of religion, as well as the direct address to the dormant intuition of the race in the Godless individual. The latter, indeed,—the assault upon the conscience namely,—has hitherto been and will always continue to be the great and wonder-working method of the true preacher. But he will hardly reach the mind which has awaked to the spheral music of pure ideas, and become accustomed to expect every conviction to flow out of some ratiocinative harmony, for ratiocination is the song or singing of reason ; while the arguments of the scientific kind, which can never attain to anything higher than the summit of mere presumptive evidence at the best, are quite unable to move so rooted a spirit at all. Not only this rare species of scholar, moreover, but many less cultivated members of the reading community have become well-nigh impervious to the argumentative sermon, and willingly deaf to the long-drawn pleas of

Paley and his Bridgewater reiterators. In such an emergency it may be worth the preacher's while to master the analytical paragraphs of this fragment before dismissing them as either unintelligible or inconclusive. The difficulty of doing so consists, not in following the steps of the analysis considered as an abstract process, but in investing that naked abstraction with the life of man. It is the same kind of difficulty as obstructs and often withstands the artist when he is willing to shed his idea of beauty into this or that individual combination of forms. It is like that which the philosopher has to overcome, although he never wholly conquers it, when he proceeds to clothe his deepest thought in words. It is even akin to that hard problem which every son of man must strive and struggle, and strive again and struggle without ceasing, to solve, when he has the grace to aspire toward the setting forth of the diviner life upon the earth. The only way of coping with this grave impediment in the way of our analysis, in so far as its reception by the untrained mind may be concerned, is to assume the function of the historical painter for a paragraph or two; and to essay the imaginative description of the spontaneous resolution of self-consciousness in the ideal of a perfect and virginal man. In this perilous attempt, we must depart altogether from the thought of ourselves, or of the men and women around us; for we are all the children of a particular and a partial time, and that time lies in the sorrowful way upward from the fall. The spirit of our age has modified, if it has not altogether fashioned, every one of us. If we be sensationists, then we are beclouded, and do not see the heavens. If we belong rather to the entering time and are idealists, we are certainly above the clouds; but the air is too thin, and

the clouds conceal the fair body of Nature from our view. It is the very circumstance of this alternative, in fact, that renders the marriage of ideal truth with the sensuous life of man in any one so slow of consummation.

But endeavour to realise in the imagination the first moment of the Adamic life. Conceive the voluntary dust of the ground to have just gathered itself up into the glorious figure of man, at the impulsion of the Word Divine; and also that the spirit has instantly stolen into the awaking members. The sure resultant of those new-created factors of his dual unity, self-consciousness, arises within the sublime automaton like a sun; and what does he behold? Not his animal person, sculptured out in perfect beauty from the rest of Nature, and lifting up its capitol beneath the dome. He does not yet enucleate his body from the body universal of the world: when he walks abroad, all things remove as well as he, and the warm earth sucks his steps. Where does his body end and the rest of Nature begin?—HE IS AS YET THE SOUL OF ALL. What, then, does he see in the morning radiance of this primeval self-consciousness? He beholds himself, and without words upon the lip or in the mind, he feels in the heart, 'It is I and——' And whom?—'Ah, it is THOU. O Thou only one, I am thine and Thou art mine. I am finite and Thou art infinite. I am thy creature and Thou art my Creator, I am thy child and Thou art my Father.' And it is thus that he speaks face to face with God in the garden of life. But the second analysis having been achieved, and his body set free from and within the universal organism, Nature soon overflows his senses and usurps the sovereignty of his soul; and so he hides himself among the leaves of place and time. Yet God will



find him out, and restore him to himself by the way of sorrow, the just suffering for the unjust. Then will he exclaim between the sobs of penitence :—O Companion of mine innocency ! I am now weak, but Thou art still almighty ; I am vile, but Thou art holy ; I am full of all iniquity, but Thou art of purer eyes than to behold evil ; I am defaced, but Thou art still radiant with supernal beauty ; I am still thine, O be Thou mine again for evermore !

Nor is this only a feeble symbolical picture, painted on and by the imagination of the world. It is what transpires, with more or less simplicity of process, in every one who bends the knee in spirit and in truth before God. The Divine thesis is always, ‘ I am in that I am,’ as it was sounded through the organ of ancient Moses ; and the antithesis that audibly murmurs within the genuine man of to-day is nothing but ‘ I am in that thou art.’ It is this spontaneous and primitive resolution of the aboriginal self-consciousness into its Divine and human elements that is the origin of all prayer. The act of prayer is always diminished and imperfect as soon as it is poured into words ; and that from the very nature of the case, for holiness is as inexpressible by finite symbols as is either truth or beauty : but the idea of prayer is sempiternal notwithstanding. Yet men have always prayed, and they love to pray in those inadequate figures of speech. It is essential, in truth, to social prayer ; in which saintly natures appear to take nearly as much delight as in the upbreathings of solitude. The worded petition has accordingly become one of the everlasting forms of literary expression. It is older than the lyric, epic, or dramatic poem. It is not so recent as any of the shapes of art now extant, in truth ; always excepting such history as is in the book of Genesis, which is the

most antique of the descendants of memory. That wondrous orb of sacred literature, the Bible, is studded all over with jewels of prayer. It is full of admirable petitions, and petitions drawn from such catholic depths of the human heart, that the pious people of Great Britain, whose genius is so diverse from the old Hebrew spirit, still vibrate under their thrill as if they were the new-year's utterances of the soul. To say nothing of the dewy droppings, the sobbing rivulets, and the swelling rivers of prayer that adorn and fertilise the continent of the Old Testament; our Lord's Prayer is one of the calm immortal pieces of the world. But it is too high, serene, and self-contained for the ordinary moods of human nature. It is an authorised ideal. It is manifestly the outbreathing of one who was harmless, undefiled, and separate from sinners. It is short and unimpassioned, and it represents the Son of Man in equilibrium with God the Father. What a contrast it offers to the passionate effusions of Moses, Job, David, Solomon, Daniel, and the prophets! It neither pants nor wails. There are no vehement prostrations of the repentant soul, no yearnings of the spirit, no broken cries to heaven, in its pure depths. It is a crystalline gem in the cool bosom of which man coming, in the high hour of health, may behold his Maker eye to eye without blenching under the mutual gaze. But that hour, alas, is rare and brief. It visits only a few, and the few only at a time. Even the Lord of rest himself exclaimed in the hour of human weakness, 'If thou wilt, let this cup pass from me.' Nor can the wild cry of 'Eloi, Eloi, lama sabachthani: My God, my God, why hast thou forsaken me?' ever cease to be reverberated along the shores of time. It is accordingly to be gathered from the Acts of the Apostles, and from the Epistles, that the very earliest Christians sought

and found the expression of their heavenward aspirations in extemporary forms of prayer less sublime, but also less remote from the common state of the novitiate, than that which Christ bestowed upon the world. The fathers, who followed the apostles and first bishops of the Church, delighted in the multifarious composition of prayers. The liturgies of the Roman and Greek communities, the Book of Common Prayer belonging to the Church of England, the extemporary orisons of the ministry and praying laity of the Kirk of Scotland, are all so many witnesses to the perennial character of this specific literary shape. Nor is it wonderful that, since the essence, the interior and unspoken act of prayer, is immortal in the nature of man, the spirit should always be craving a body in expression. Painting, sculpture, music, poetry itself will as soon cease to exist in outward arts so long as man perceives and loves the beautiful, as prayers will give over being made so long as he recognises and worships the holiness of the Divine Being. Men may as well be expected to stop philosophising, and yet continue to be the affectionate votaries of truth. Art, philosophy, and prayer are the threefold body of that Godward aspiration, which is involved in the primitive self-consciousness of man. They are essentially correlative and coequal, when contemplated from the highest point of view ; but philosophy and art must long be confined to a very few, while prayer is the common sphere of all. They are all necessary to the cultivation of some approximation to a total, large, and generous humanity within us. Yet what with the obsolescence of the language in the prayers that are current, what with the inflexible body of physical science, what with the new metaphysical doctrines, and what with the vices of the age, there is a multitude of us who never pray at all, at least in words. The

common literary form of prayer is almost abandoned by the so-called cultivated classes, except by way of convenient routine ; and there is no denying the lamentable fact.

It may be necessary, however, to guard against its being thought that I take a frivolous view of prayer when I speak of it so inexorably as a literary form. It is so in reality, for the most extemporary and immethodical, although it may be pious rhapsody that was ever poured out, either in an assembly of the people or in the solitary closet, is nothing but a tissue composed of the classical phraseology of prayer. It is a compilation rather than a spontaneous utterance. Prayer shed into words is, either consciously or unconsciously, an artistical manner of moving one's-self or others towards God. When native and original, as it ought to be in him who prays aloud or alone, it is more spontaneous, less conscious, and wholly sincere ; and it carries away the totality of a man's being on its resistless tide. It is like the moment of philosophical insight, or the act of poetical creation. The sole difference is in the circumstance that only a few men can be sages and poets, but it behoves all to be saints. Original and native prayer should breathe forth from every bosom. But it is not so in fact. In the present reality of things it is a small number of men who pray for the rest, just as it is a little band that creates and thinks for them. It is to be surmised that all men shall have attained the individual utterance of prayer in the millennium ; and perhaps all men will also think and create, during that expected summing-up of the ages of the world. In the meantime, the literature of prayer must be furnished by particular hands, as well as that of philosophy and poetry ; and, until some Memnon in the East of Time shall have announced the sunrise of a day of universal inspiration,

the Bible shall continue to be the solitary classic of prayer and golden treasury of devotion.

The radical errors, in so far as religion is concerned, of the purely ideal methods of philosophising which are now beginning to prevail over the younger and finer intellect of this country, are certainly to be found in their tendency to separate God from Personality, to confound Nature with the Deity. All that has been said in the foregoing paragraphs was evidently intended as a confutation of the new doctrine of the Divine Impersonality, but in case any one should infer that I lend any countenance to the pantheistical manner of considering Nature, it is necessary to set the true relation that subsists between God and Nature clearly before the ingenuous student. My conceptions on that great subject will be most easily explained in the twofold shape of the metaphysical analysis of the perception of matter, followed by a physical analysis of matter itself, and the combination of these two in one hypothetical doctrine concerning the self-manifestation of God in Nature. Nor must anybody grudge the space that will have to be spent in the exposition of the first part of this new topic; for, although the question respecting the perception of matter is a thrice-told tale, it may derive some original interest from the novel connexion in which it is at present to be discussed and solved.

I. There was long a standing controversy between the metaphysicians proper and the psychologists of this country concerning the perception of matter. Nor will the reader be at any loss to recognise and differentiate these opponents, if he think of Berkeley as a capital representative of one class, and Reid of the other. The psychologists resolve the perception of matter into the

perception of the sensation of matter—two terms to begin with: the image, and the perception of that image. They then resolve the sensation of matter into three elements—matter *per se*, or *sine perceptione*, matter by and in itself; the organ of sensation, the nerve of the percipient; and the sensation, the resultant of the action and reaction of matter and nerve. One perceives a green tree, and there are four elements in that perception. There is the tree, not green, indeed, but capable of producing the sensation of greenness upon, or rather with, the retina of an eye, the retina having as much to do with the greenness as the tree has; there is the retina susceptible of the sensation of greenness from the image of a tree which is not green, but which has as much to do with the greenness as the retina has; there is the sensation of greenness, which is thus the *tertium quid*, resultant, or community of tree and retina; and, lastly, there is the mind, soul, or spirit, which perceives or attends to this new-born sensation.

Such is the analysis of those ascendantal psychologists, who have tried to build up a philosophy of the human mind with the concrete facts discoverable in the educated consciousness of man, with certain real or supposed laws of our nature as the foundation underground. Reid did accordingly still more than make this analysis, inasmuch as he attempted to ground it on the principle of the common sense of mankind. It was put forward by him as a sort of *chevaux-de-frise* against universal scepticism on the one hand, and what was then called idealism on the other. He asserted that it is a law of our nature to refer our perceptions of sensations to such outward matter, and that the instinct is irresistible even by sophisticating philosophers and sceptics. Now this was not only an unfortunate mistake, it was a glaring error.

Scrutinise the first product of the second analysis a moment—matter by itself, a tree not green, a sky not blue, an earth not brown, but only capable of combining with an eye-nerve to produce these colours, as the centripetal and centrifugal forces of a planet conspire together to produce its revolution round a sun. Matter *sine perceptione* is matter with all its properties struck down into a state of absolute latency. It is matter naked, pure, and only ready to indue itself with the various beauty of nature as soon as an eye shall open on it. It is an abstract and unqualified matter. It is the very *ultimatum* of abstraction. I do not at present deny that such matter does exist, but it was never heard of in the world till these analysts found it out. It is fairly and entirely the discovery of these schoolmen; but the popular intellect cannot seize it, now that it is discovered. The man of education tries to grasp it; he thinks perhaps he has laid hold of it, but it always escapes him. Even the long and severely trained philosophical mind cannot form any permanent conception of it, but must rest satisfied with the formulation of it in his analytical table. So far is it from being instinctively accorded by the common sense of mankind! No; the matter which our general human nature beholds and believes in and loves, is no such lifeless residuum of the analytical alembic. We see the brown earth, the blue sky, the green tree, and so forth, and it is in the external existence of these beautiful creatures alone that we intuitively believe; hence the simple analysis which the metaphysicians have always made of the primitive phenomenon of the perception of the sensation of matter. They simply halve it. Perception is one term, sensation of matter the other, of their formula. I perceive, is the former; a green tree, the latter. With them, as with children, poets, and

common people, there is no such thing as matter *sine sensatione*; there is only matter *cum sensatione*. They perceive alone sensations of matter, green fields, blue hills, and the like. They assert that we know, and can know, nothing of matter-by-itself. They regard it as the sheer invention of an ingenious but short-sighted science. This is substantially the metaphysical creed in every age and in every school. It is as remarkable for simplicity and humility as the psychological one is for pretension and complexity. Other doctrines, indeed, have been united with this analysis, and there have been developed from it as from a germ the schemes of representative and subjective idealism; but this is not the place to trace the genesis of these diverse systems. Suffice it at present that I hold by the metaphysical analysis of the perception of matter as the only genuine and possible one, without being either Berkeleyan or Hegelian. Nor must the reader omit to notice very particularly at this point, that this view does not in any way affect the nature of physical investigations; for physical science just remains what it always has been in its essence, viz., the observation, classification, generalisation, and (by the application of the mathematics) the universalisation of all such sensations of matter as are anywhere to be perceived.

This analysis does not by any means deny the existence of matter. It only states, more clearly and philosophically than is done in the psychological one, that it is sensations of matter alone that we perceive; while it denies that there is any such thing as the intuitive referring of these sensations to such an abstract creature of the mind as matter-by-itself. It does not, however, deny that there is or may be such a thing as matter-by-itself; it simply and irrefragably denies that



such abstract matter is or can become the object of instinctive or intuitive or fundamental belief. It keeps the eye full upon the actual world, and insists upon the manifest fact that it is in the outwardness of sensations-of-matter (green seas, grey clouds, cold winds) that man believes by instinct, intuition, faith, or a law of his nature. The fact is, that it holds by the common sense of the race, although the true metaphysician does not proceed to erect a philosophy on the principles of common sense, because he knows his province better. The psychologist, on the contrary, professes to be the disciple and interpreter of the common sense, and yet in declaring that the common sense of mankind at once refers sensation to the action on him of matter-by-itself,—which we have seen to be a remote and scientific conception of the cultivated mind,—he sets the universal current of humanity at naught. These opponents, in a word, are not unlike the two servants in the Christian parable: one said ‘No’ to his master’s bidding, and yet he did it; the other, ‘Yes,’ and did it not.

II. It has been said that the metaphysical analysis of what is called the perception of matter does not by any means exclude the possible existence of matter-by-itself. In truth, it leaves the secret nature of matter-with-sensations, or sensations-of-matter, untouched, and an open question. Only it does not find, and it denies that there is, any intuitive or common-sense solution of that question. It is a question for research.

Considered from this point of view, the inquiry is big with interest and importance. It has not hitherto been investigated, except in the hypothetical manner. The hypotheses which have been advanced may be divided into three classes:—

1. There is that of the psychologists, of which I have

said so much already. They brought it forward indeed not as a hypothesis, but as a fact of common sense—a thing which it has just been shown not to be. It is a hypothesis more or less fitted to explain or analyse the sensation-of-matter, the red rose, and so forth; and it falls now to be considered as such a hypothesis among others. The conception which it hypothesises in order to render matter-with-sensation (the green tree) more intelligible, is that of matter-by-itself. Nothing can be adduced in favour of this hypothesis, except its verisimilitude. But that quality is perceived in it only by a limited number of minds. It has not a tittle of verisimilitude to me, for instance, although the nature of my regular studies is calculated (apparently) to predispose me to its acceptance. It also appears to me to be demonstrably erroneous. It proceeds upon the monstrous supposition that any actual thing can correspond with or be represented by an abstract conception. Matter-per-se, matter-sine-perceptione, is the reverse of a concrete—it is a high abstraction; and therefore neither it, nor anything truly representing it, can underlie the multitudinous particulars of sensation. The clearness of this refutation will be increased and made almost excessive by a familiar illustration. There are many species of the genus rose, and many varieties of each species. The botanist first ascends from the properties common to all those varieties to the general conception of the species of rose to which they belong. This process he repeats upon the varieties of all the species, species after species, until he has constructed general conceptions of all the species of rose. From these conceptions of the several species he gathers the abstract conception of the genus rose. There is no such thing as the genus rose; no particular rose is it; it is a purely abstract conception. Now if it is

logically impossible for that conception, genus rose, to uphold anything in nature, it is still more impossible for that still more abstract conception, matter-per-se, to be literally in the universe, and, indeed, to fill the one-half of it.

But if it be said that this matter-per-se is an abstract generalisation, induced upon all the individual pieces of matter-per-se hypothetised to be under all known sensations-of-matter, that is hypothetised as under each of them successively, the case is not mended. An individual matter-per-se is hypothetised for the green tree, another for the brown earth, and so forth; and the generic matter-per-se is just the genus of these individual matters-per-se. Let  $A$  = the green tree, let  $y$  = the share of  $A$  contributed by sensation, and then certainly  $A - y$  = the share contributed by that which is not sensation, and you may say that it is the matter-per-se of the green tree; but the difference of a known and an unknown is itself unknown, and therefore  $x$ , another unknown, is the symbol; and thus  $A$ , the known, the green tree, is only analysed by this process into two unknowns,  $x$  and  $y$ . This will do in algebra, but not among the concrete materials of human experience. First one unknown is hypothetised, and then another one is extracted from it and the known. And this scheme, which is boastful of its realism, turns out to be a tissue of hypotheses. It should be called the doctrine of excendentalism—not that of common sense.

2. One class of metaphysicians, content to perceive that what the public reason or intuition of man recognises in this direction as external to him, or rather simply as not-him, is a vast and orderly confluence of sensations-of-matter, proceeds to hypothetise in this manner: These sensations-of-matter are not me, and

they are not mine ; but that does not hinder that they may be another's ; and his hypothesis is that they are God's. He conceives of them as a world of Divine perceptions, affections, or phenomena, into the perception of which he is for a time admitted for the purposes of culture. This is the doctrine of representative idealism. 'God paints the universe on the instant eternity for the culture of a soul.' But whence does the speculator derive his notion of a perception ? From his own. But his own perceptions are perceptions of somewhat—of these supposed Divine perceptions in fact ; and if the analogy is good for anything, it must be complete ; but what are these supposed Divine perceptions the perceptions of ? Where are their objects, since it is the nature of a perception to have an object ?

It is curious to see how these two hypotheses tend to the same point ; for the psychologist for the most part subsumes that his matter-per-se is the creature of God, and, in that sense, Divine. In both cases, Man is hankering after God in this labyrinth of sensations-of-matter.

3. The subjective idealist summarily cuts this Gordian entanglement, but the end of the coil instantly twists into a new knot. He asserts that man in sensation sees only himself. All things are himself become his own object ; all things are of him, to him, by him, and that according to eternal necessity. He and the things are not two but one. This subjective idealist identifies himself with God, produces nature out of himself, and annihilates all other men save and except as parts and parcels of himself. This is a very consistent, and for some purposes a convenient formula ; but nobody to whom it is taught can criticise it, for it ignores him. It escapes controversy, for it puts out the controversialist. No one can receive it from another. It is the solitary birth of its one

parent into a depopulated universe. It appeals to no judge. It accordingly does not belong to philosophy, for philosophy is social, and tacitly implies an audience. Happily for us, however, it is an evasion and not a solution of our question; and we have therefore nothing to do with it, even if it could be submitted to mortal scrutiny. It is strangely interesting, however, to observe that this slippery and sublime egotism points like its predecessors, though with reverted finger, to God as the solution of the mystery. The psychologist, the representative idealist, and the subjective idealist, do all set forth, in their respective and imperfect replies to this great question, their ineradicable conviction that Nature is phenomenal and temporary, while it is in some way or another connected immediately with the Divine Being. The common sense, universal reason, intuition, or faith of man is indubitably to the effect that the multitudinous array of sensations-of-matter which deploys itself around him proceeds from God. 'Through faith we understand that the worlds were framed by the word of God.'

Must we then be for ever content to know these two things and no more: First, that sensations-of-matter, and not any incredible supposititious matter-per-se, are the things we perceive; and, secondly, that these sensations-of-matter are in some way or another Divine? May we not inquire more particularly into the manner of their procession from God?

The voice of the people, in its great and catholic character, has always and unmistakably pronounced the relation of Nature to God to be that of creature and Creator. So that what idea soever may be evolved in our analysis, we must come round at last to that which is essential in the popular insight of our vast and com-

mon humanity. It is the part of the man of science, not to neglect or try to confute the fundamental beliefs of the race, but to strip them of their superstitious adhesions, and to present them to mankind in their pristine and paradisaic purity. It is the province of the philosopher, on the other hand, to investigate the rational grounds of these beliefs.

That which the *sensus communis humanitatis* perceives and says, in this instance, is not that matter, but that matter-cum-perceptione (as green trees and fields, blue sea and sky, and so forth) was made and is sustained by God. God made and sustains, not by any means the hypothetical Nature of analytical psychologists and afterthinkers, but the many-coloured, vocal, odorous, warm, thrilling, and multifarious Nature which man actually perceives, never dreams of disbelieving, and cannot choose but love. The duplicity of the phrase 'made and sustains,' however, has been unfortunate in its effects upon the literature of Natural Theology, although it is not illogical in itself. The simple idea of which it is the unfolding, is expressed in the present tense of the former verb. 'God makes and continues to make, or simply makes, these worlds,' is not precisely equal in value to saying 'He made and sustains;' for it leaves the process without a beginning, and therein fails to separate between God and Nature. The pure statement of this object of human faith is this: God made and makes, or God began and continues to make the world of sensation. He did not make that world and then withdraw from it, leaving it to be sustained by second causes. He made and Himself sustains it. That is the aboriginal faith of our nature concerning it. The notion of second causes is an afterthought of the scientific class.

Yet this corruption of the primary belief of humanity has been all but universally received and propagated by modern divines and men of science ; so that the reading and hearing public of the day has altogether ceased to preserve the native attitude of Man in the presence of God in Nature. I put it to the critic if he does not gather from the pages of Ray, Derham, Nieuentyt, Boyle, Paley, Wollaston, Chalmers, Sumner, the Bridgewater writers, Babbage, and Combe (to say nothing of the crowd of theological and scientific penmen who have spoken only by implication on this subject), that God made the world either in a space of time, or in a moment of omnipotent energy, simultaneously impressing it with laws of development and conservation, capable of upholding it until He chose to come out of His central heaven and annul those secondary statutes of creation ! Do not the divines of this modern school suppose a miracle, or an answer to prayer for some natural benefit, to consist in the temporary superseding of these delegated laws by the immediate will of God ? Do not the men of science in general agree, with more consistency, to consider the doing of a miracle, and the granting of a prayer to be a pair of vulgar impossibilities ?

The essential and indestructible creed of man in this phasis of his life, then, is no more nor less than this : That God did once begin, and still continues, to make that which we call the world ; that it is the hourly work of God we hourly behold ; that God addresses us in these appearances every moment ; that the physical scene of our spiritual life is no horrid machine capable of crushing us among its wheels, but incapable of knowing its power ; that Nature is the spontaneous word of God abeing spoken, and that according to rhythmical law, like the speech of poets.

I have already referred to the fact, that man beholds and believes in God by intuition, and tried to discover the rational ground of that immediate insight. The equally patent facts, that man intuitively sees and believes in the world of sensation, and that he immediately refers that world to God as its continual Creator, have also just been expounded; and I shall now explore the rational grounds of these two fundamental beliefs of the race.

I. God and He once evolved from the primeval self-consciousness of man, He and his sensations, that is to say He and Nature, are yet one before God. They are the finite-I in the presence of the Infinite-Thou. The second spontaneous analysis is that of this original finite-I: it consists in the separation between man and his sensations; it ends in the evolution of Nature from his proper humanity. Be it repeated, however, that man intuitively perceives his sensations, that is, Nature, in our signification of the word, to be other than himself. It is the rational ground of this perception I now wish to set forth. In the first-born Ego of man there is derivative personality, finity, multiplicity, over against the unity, infinity, and underived personality of God. But this first-born Ego comprises Man and Nature in one: Man that is, and his sensations. The first part of the process which separates his sensations, or Nature, from him, is the instantaneous experience that the totality of these sensations, or Nature, changes without him, and even against him. This part of the process, however, would only have tortured him with the sense of slavery to some dire necessity or fate, but that the knowledge of God at once enables him to refer the mutable phenomena of sensation to another than himself. That



other, however, is not God, for Nature is not seen to be infinite, but God is infinite. It is another finite than himself.

Multiplicity is involved in Unity. The number Three is multiplex in a manner, but is not therefore involved in unity. The antithesis of unity is the idea-common of all possible numbers except One. Three is a quasi-antithesis of unity simply and solely in its definition as not-unity. In a word, the ideal relation of unity and multiplicity renders the quasi-multiplicity Three intelligible. Three does not represent the pure idea of multiplicity the opposite of unity. In strictness of philosophical language, in truth, it is not multiplex, inasmuch as it is not the polar reverse of that which is truly One.

In like manner, Infinity is involved in Finiteness. Nature is not known to be finite, but it is not, therefore, involved in the Finite-I. Nature, then, is the opposite of the Finite-I, solely as not-finite, or rather as being discovered not to be known to be finite. In a word, the ideal relation of the Finite-I to the Infinite-Thou renders the quasi-infinite (or the indefinite) Nature apprehensible, the instant it is dislodged from the Finite-I by the experience of the involuntary mutations of sensation. Nature, not known to be finite, does not present the pure idea of Infinity, the opposite of the Finite-I. In strictness of philosophical language, in fact, it is not infinite, inasmuch as it is not the polar reverse of that which is truly finite, namely, human self-consciousness, the Ego of Man.

Nature is thus taken out of man, first by the empirical observation that its mutations are independent of him ; and, secondly, by the knowledge of God rendering its alterity at once conceivable. These steps are simultaneous, and they are both essential.

II. Beholding his God face to face, and perceiving the lustrous figure of Nature by his side, it is with equally swift and infallible instinct that the son of Man knows that God did once begin and still continues to create the sensuous world. It cannot have been eternal, nor can it be self-subsistent, for one infinite excludes another, and the Infinite-Thou is already seen and known.

## NATURE AND MAN.

A MAN is the centre of innumerable circles of unresting appearances. One sphere of external objects is drawn beyond another in endless succession around him. That which seems the last is so remote and undefined that it feels as if it were infinitely vast in its awful sweep; while imagination transcends the pale of sense, and may expatiate for ever through the swelling deeps of a truly immeasurable abysm.

The first of the spheres which thus envelope the immortal denizen is the intimate little round of his body, a frame so full of quivering sensitivity as constantly to be the object of its own sensations, and so flexible to the movements of the spirit it indues, that he fondly takes it for his own. Then come the familiar forms of women and of men—folding, sustaining, embracing, accompanying, counteracting, always helping, and otherwise traversing him on his way. Next are all those animated shapes, which seem to have heralded his own descent upon the earth, and to caricature his imperfections now he is arrived; from the contractile sponge upon its rock, which ridicules the comedy of isolation, up to the spurning horse of the wilderness, once winged by the creative fancy of the Greek, and still the vaulting Pegasus of the world. There are meats

and drinks, precious stones and gold, tools and engines, statues and pictures, houses and churches, palaces and cities, murmuring fields and sounding forests, counties and countries, rivers and seas, the continents and the ocean, the globe itself, on a little segment of which he hastens to and fro till it have run its larger revolution some sixty times or more, the air in which he cools his inquiring head, the sky to which he looks in vain for a response, the sun, the stars, the firmament on firmament of sun-stars, the nebulæ after nebulæ curdling amain into new worlds on the dilating verge, and whatsoever else exists within immensity. These are the parts of nature, and nature is the sensible world of the universe; but there is a greater world, and it is the soul of man.

To some great men, indeed, nature has seemed so paltry in comparison with their own unfathomable world within, that they have refused it the reality of an outstanding existence, and even treated it with some show of contempt as an ideal pageant for the education and entertainment of the mind. Plato, Plotinus, Swedenborg, Spinoza, Berkeley, Fichte, Cousin, and many other the loftiest characters the world ever saw, have all exhibited some such view of the universe, either expressly or by corollary from explicit tenets. Above all, this high strain of idealism implicitly, but only implicitly, pervaded the practical teaching of the Saviour Jesus Christ. 'If ye have faith as a grain of mustard seed, ye shall say unto this mountain, Remove hence to yonder place, and it shall remove; *and nothing shall be impossible to you.*' In opposition to these sublime sceptics, many sincere investigators have been so overborne and compressed by the tides of sensation rushing on them from the crowded and whirling space without, that they have been driven to the denial, not only of God over all, but of themselves,

and have proclaimed Almighty Nature to be sole and self-sufficing. Democritus and Epicurus, Locke and Helvetius, Gall and Comte, have all inculcated methods of investigation which unavoidably involve this awfully partial theory of the mystery of existence. Fanatics, who generally unite the high aspirations of the Idealist with the low conceptions of the Materialist, have learned in every church of every age to hate their bodies, curse Nature, and die unannealed.

Could the sacred theme be illustrated by the uncertain play of glowing figures, a poet might declare that Nature is not the prison-house of the soul, but the nursery of his young endowments. Yet it is never left behind and forgotten, for it changes and unfolds its inexhaustible capabilities along with the growth of the angelic child. It is his garden of sunny sports, where he waves his joyous limbs, and blossoms a flower among flowers. It is the school at which he learns to know and to name himself aright; and then the university of faculties where all his energies are every day provoked into nobler strength. It is his odorous bower, under the many-coloured shade of which he reclines at ease in blessed contemplation of the Supernal Beauty. It is his marriage-bed, his home, his place of work, his sphere of duty, his native land, his everything he can fulfil, until he reach that strain of holiness that turns all the objects of all the senses into the harmonious proportions of one resounding temple, himself at once the anointed king, and the self-abnegating priest of the sacred fane. Nay, there are times when all that is private and particular about a man is suffered so to ebb, that what is public and Divine overflows and fills creation. He stands on the crested pinnacle of some high Benledi. The purple morning salutes him from the ocean beyond the sea.

Misty hills of birch and fir are at his feet ; and beclouded mountains stretch and tumultuate before him far beyond the western horizon, like the distracted billows of some traditionary world of waters which were spellbound by a word. The sun flashes over the tops and surfaces of the opening scene. The village begins to smoke beside the river that thrills the neighbouring dale like a silver vein. The thick dews steal off the hillsides, gather themselves up into weird, tall shapes, and stalk away up a hundred glens. Beamy lakes awake on every side, the changeful eyes of the fruitful earth, the mighty parent of his body ; and from the deep full heart that kindles within, they motherly return his kindred gaze. A thin and timid south wind springs awhile into the air, and murmurs among his tangled locks. Then do wooded hills and rugged mountains, river and dale, runnels and glens, sea and lakes, ocean, sun, and sky, all glow, dilate, and melt around him on his cairn ; and he lifts his front into the heavens. It is then that nature, in the flush of his exultation, is indeed the body, and himself the soul of all.

This conscious shedding of the soul through a man over the whole domain of nature is only a rare occurrence. It is not the purpose of God that it should be otherwise, else the present business of the world would be at a stand. A man is an animal in nature. In each human figure the soul is brought into that communication with nature, which is called life. It is for the most part a union of contact rather than one of diffusion ; so that a fresh character, full of exuding sympathies like the young Davy, is said, even by a refiner so subtle as Coleridge, ‘ to touch nature at every point.’ One is isolated from the surrounding world of matter by sensation. His sensations cut him out both from and within the rest of nature, and

he walks abroad an individual shape, 'the paragon of animals,' to suffer and to do. Yet his organs of sensation, his whole body, which is just one composite organ of sensation, are themselves objects of sensation to him as much as the men and women, houses and streets of the city.

Now, all that is individual, and not universal, in human thought and emotion is complicated with sensation actual or remembered ; and in this sense the body is the organ of emotion and thought. The multiplied observations of organology have discovered a somewhat definite relation between different parts of the body—for the nervous system is the real body of an animal—and the different composite manifestations of human nature. The individual life of a man proceeds from the combination, or rather the confluence of the infinite spiritual force within, and the finite sensitive force without. The soul perceives nature through peculiarly organised parts of nature, different properties of nature through differently organised parts of nature (in this instance through the cerebro-spinal axis of man in its parts) ; and this perception of nature by the soul through cerebral matter is an ultimate fact in the natural history of the world. All the parts of the brain are organs of sensation, each of its own kind ; for there are as many sensitivities in man as there are qualities and combinations of qualities in nature. Every reaction of the soul on the perception (direct or remembered) of a quality in nature, is the manifestation of a faculty, sentiment, or propensity ; each manifestation being the resultant, as the geometer would say, of the concurrent impulses. Gall and his followers, however, have recklessly omitted to reflect on the significant circumstance that, according to the strictest experimental

method of the positive sciences, the discovery that one thing or set of things is essential to the production of a given phenomenon, is not by any means the would-be far greater discovery that it is all that is essential to the phenomenon in question. The body and the soul are both essential to the manifestation of human life and character. As the body comes into shape, grows, decays, and decreases, so do they ; and in proportion as any organ of the brain grows and decays, so does the composite manifestation with which it corresponds : for the body with its parts is essential. If the soul were not immortal and indivisible and unchangeable, its mutations would affect the exhibition of human character on an inconceivably more awful scale than do the changes of the body.

The soul is everywhere. The physiologist may talk of sensations darting like light from the eye, or from the finger to the brain, and say that the volition to raise the hand or open the mouth in speech, electrically thrills through the voluntative nerves from the brain to the muscles of these organs, but nobody will believe him. The will is the fashioning lip and uplifting arm. The landscape is in the eye. The soul is in direct communion with nature at every point of the body. That intercourse differs in degree at different points, and that so much as to look different in kind ; yet there is no greater difference than there is between the outward appearance of one nerve and another, the anatomist knows how little. At all events there is neither subordination nor insubordination among the parts. There is only combination. The organs of the body, from the consecrated brain—to the eye of man no fitter an organ for the soul than the heart—out to the little finger, are so linked together in respon-



sive harmony, that a false note struck on one, jars on the strings of all. The brain, the spinal marrow, and those leashes and knots of glistening nerves that run all through the body : that soft, though fibrous nervous system is, indeed, the most intimate under-clothing of the soul, under the immediate cling of which it moves and glows. Next come the covering textures of the specific conservative senses in the lungs, in the heart, in the bowels, and elsewhere ; mucous membranes softer than purple velvet. Then the thick and thewy coat of muscle. Above these are the four specific senses, with their curious ornamental workmanship. Over all is the panoply of that universal sense which introverts a man, renders him the object of his own sensations, and fences him round from every other person and appearance. Yet where does the man end and the rest of nature begin ? What are the bones, the teeth, the nails, the cuticle, and the hair ? Where is the line of demarcation ? Is not the whole of nature, stars and all, the body of the soul ?

Whatever be the last reply to this quaint inquiry, it is evident that the nervous system, or cerebro-spinal axis, is the true body of the soul ; yet no part of that system is so inferior to another as not to be close upon the indwelling spirit. The soul looks out upon nature through every transparent particle of it alike. It is said that the brain is the sovereign part, as if all the others were mere accessories and conductors to it. ‘ A limb may be removed, but the brain must not be touched, else the whole body will cease to be any more translucent to the soul than a statue of marble. The head cut off, the rest of the body dies.’ Yet it seems that the truth is in the fact that, of the whole nervous system, the extent of the part that is injured is the only thing concerned in the

production of the phenomenon of death. It matters not on what point of the system a drop of prussic acid falls, for, whether it be insinuated into the organ of veneration, or the ball of the big toe, the whole organism is petrified in a moment. A transient whiff of arseniuretted hydrogen inhaled over the nervine fibrils of the wind-pipe, were as certain a quietus as if it were condensed into a dreadful liquor and instilled into the ear. As for mechanical wounds, it is to be remembered that the spinal marrow and the brain are soft and tremulous, being far less protected in their intimate structure than the nerves. It is to be supposed that the true nervous matter of the brain alone could be spun into a whole body of thin well-sheathed nerves of sensation and volutation; yet after these deductions are made, the relation is mutual and equipoised. In truth, when the head is severed from the trunk, the trunk is just as truly severed from the head, and they fall dead together in an equal separation.

Everywhere is the soul. It sustains all Nature: sustains and is irritable by Nature in vegetable forms; sustains, is irritable by, and is sensitive of Nature in zoophytes; sustains, is irritable by, is sensitive of, and perceives Nature in animals properly so called; and not only sustains, is irritable by, is sensitive of, and perceives Nature, but sees the law of Nature through the sublime port of man. These are the fine manifestations of the soul in Nature. They are so many kinds of life, or so many specific natures, from mineral up to human nature. By man alone is the highest function of the soul in Nature ever performed; and even by him only rarely, never continuously, and always partially as yet. Appearing in him as it has done, it has been called the Word—

the light that lighteth every man that cometh into the world—a particle of the Divine afflatus—the spiritual mind—the reason in distinction from the understanding, which every animal alive enjoys—the pure reason, and many other names, which all signify the peculiar relation to the soul and to Nature sustained by man. Believing in the soul, in nature, and in himself, it is Faith or Reason intuitive; recording the law of equity and iniquity within a man, it is conscience or Reason practical; and decreeing the law of necessary relation, it is Reason speculative. Prophets, poets, and philosophers, are men through whom one or other of these modes of this, the highest function of the soul, is made manifest in Nature, with less or more impartiality. Holiness, prophecy, and genius, are kindred outbreathings. He whom they should conspire to fill, were a man complete, and the Lord of Life.

Manifold Nature is the express image, and the true contemplation of Nature is the jubilee of the soul. The man in whom such contemplation transpires, is among the blessed. He utters his joy; he builds temples, carves shapes of ideal grace, paints the perennial beauty of embodied Godhood, or hymns, in melting music, the harmony that penetrates and dissolves him. He sings God and Nature in the life of man. If all the ravishing utterances of sense, and even the higher harmonies of poetry, be for him swallowed up of the serener passion for the True (which enfolds the beautiful as the sky embosoms the glowing stars), he proclaims the law of God in Nature. Such are the artist, the poet, and the sage,—Handel and Raphael, Shakspeare and Homer, Spinoza and Plato. There is a form above them all, as far as the heaven is above the earth. It is the saint.

He realises, or wrestles to realise, the ideal life. A true life is the wisest philosophy; a beautiful life is the noblest work of art. Its melody is music, its repose is the perfection of form, its radiance colours the world with celestial hues, its eye builds everywhere a fane;—and a good life is the only true and beautiful Theology.

# LAY SERMONS ON THE THEORY OF CHRISTIANITY.

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No. I.

THE FIDIANISM OF ST. PAUL.

BY VICTORIOUS ANALYSIS.

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TO THE READER.

BROTHER!—The history of the Discourse you are about to read is very simple.

A little company of the Lay Brethren of Christ Church is wont to assemble every Sabbath evening in my cloister, because it is the lightest and airiest of the sacred establishment to which we belong, being right over the gateway, and having a skylight. Then and there, the statelier services of the day over, one or other of our company delivers some digested word of his own to the rest. Finding ourselves placed midway between the Church and the World, the two great ends we constantly hold in view are the vindication of the one and the conversion of the other. We would vindicate the former by telling the modern world what the Church really believes; and do our best towards the consummation of the latter, by showing how conformable that belief is with all that can be known about the Universe of God.

Now, although our quiet proceedings have arrested the attention of some few familiars of our own, who like to lounge a good deal about our gates and shady pleasure-grounds, and are allowed to listen on the leads of the archway; and although we have incurred the censure of our ecclesiastical superiors, some of whose tale-bearers have been eaves-dropping, and have not heard at all, but run away with a phrase here and there; it has for some time been our conviction that, true as it is that nothing is ever lost, it cannot be very useful to be preaching our gospel views only to each other, since we all believe the same thing in the same way. Accordingly, we have thought to try if our analytico-fidian Sermons, as one of the brethren likes to call them, meet and in any degree supply the wants of any the smallest section of the reading public, either in the Church or out of it. This is our first experiment; Brother Analysis' discourse having been chosen, not because it is a very favourable specimen of either himself or us; but because it was our introductory address, and the theme was fallen on by lot. Reader, we commit it to thy charity. If the experiment be anywise successful, it will be repeated from time to time, till it cease to be so. If not, forgive us.

(Signed) ERNEST TRUMAN,

In name of the little company aforesaid.

CHRIST CHURCH.

CANDID READER!—My name, and the name of my sermon will likely give you to understand that the walls of my cloister have not hindered me from imbibing somewhat of the fidianistic spirit that is being infused into the age in which you and I have been sent to live ; but that, cloistered though I am, I would fain put in a claim for the rights of Old Analysis. I have been determined to this by a multitude of external and inward forces, and if I did not believe that it is the very thing that is wanted, I should never have come before either my brethren or thee as a Lay preacher. Alas ! the task is too great for my strength ; but, if no one will rise and essay to do it, may I not provoke some giant to come forth by my insufficiency ?

Brother ! God bless thy thoughts and mine !

V. A.

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### T H E M E :

‘ BY FAITH ABRAHAM, WHEN HE WAS TRIED, OFFERED UP ISAAC.’

BOOKS are the strongest of all the embodiments of the power of man, for good or evil, over humanity ; and the Bible is the divinest of all books, living and working, indeed, in one sense, alone in its divinity, as the specially inspired voice of God in the world. The Older Testament guided the lives of the wild-hearted and almost unmanageable Israelites through many a century, and was long their hardly violable bond as a people worshipping the invisible God of faith, in the midst of a thousand fears without, and fightings within. So did it con-

tinue, holding them up, checking, restraining, and otherwise teaching them the only rule of life, till their belief in it became adulterous, and produced Pharisees, Sadducees, and whatever else might be engendered by a loose faith, become false to her Lord, and turned to sundry of his creatures. There it stood, and moved before them like their old pillar, gathering ever new accessions of fire and brightness from the utterances of its successive historians or epic poets, priests, and prophets; leading them on to valiant conquests, self-defences, and endurances of conquest; and empowering them, more valiant still, to hold fast the profession of their faith; for at that inextinguishable flame, they lighted and lighted again the national eye of insight, which flashed its renovated fire on the gods of the nations by which they were beset, and showed them only wood and stone, or at the best only gold, which might be burnt to ashes, strawed upon the water, and drunk.\* This would have been a great thing to have done, even for a wandering, fighting, and long victorious family of children of the desert like the Jews, and only during a few hundred years: a very great achievement for a growing book, and worthy of special notice in the history of the world, perhaps of the universe itself.

The Old, however, was only the forerunner of the New Testament; and the LIFE which is told in the latter could not have been produced till the national life, which had been sustained by the Old, had died and

\* Exodus xxxii. 19.—‘And it came to pass, as soon as he came nigh unto the camp, that he saw the calf, and the dancing: and Moses’ anger waxed hot, and he cast the tables out of his hands, and brake them beneath the mount. And he took the calf which they had made, and burnt it in the fire, and ground it to powder, and strawed it upon the water, and made the children of Israel drink of it.’



gone to corruption, having latterly fed out of platters clean only outside, and, at length, buried itself alive in a whited sepulchre, full of dead men's bones. Ay! and, if there is any sacred meaning in the history of mankind at all, that ever-blessed LIFE could not have been led, or rather say undergone, but among the half-believing, trampled, and sycophant remains of the Old Hebrews, with its formulism, scepticism, and meanness of every kind. Yet the ancient spirit was not wholly out; that would not have done either. There was even yet an Anna here and there; a Simeon, a Zachary, a Joseph, in whom the ancestral ardour of prophetic intuition into the transcending majesty of Jehovah, and the all-important and boundless nature of their allegiance to Him as their fathers' God and theirs, still burned inextinguishably. There was still sustenance and room enough for an Evangelist, in the wilderness of whose reserved and solitary heart that same perpetual fire had become pent up, till it burst out in flaming indignation against all who would not repent—quite change their flimsy way of looking on Godhood, God's universal system of things, and themselves, as little but altogether momentous and indispensable particles of that system, and consequently of acting in relation to these—and 'be saved,' as the phrase has come down big with eternal, unutterable, and every way infinite meaning. John the Baptist preached, baptized, and gathered many true disciples round him in the wilderness; for the Kingdom of Heaven was at hand: and it came.

This is the right view for us, who live now, to take of the Old Hebrews, and the Old Hebrew Bible: the people, and worded system of belief and form of belief, the apotheosis and crumbling down of which was the political and spiritual ruin in which the CHRIST was born,

and by His birth filled the one great vacuum which the earnest spirit of prophecy had long, or always, felt to be void ; lived, and by living taught how to live aright ; and suffered, to atone for all mankind by such suffering as His alone could be. The New Testament is the narrative of that Divine life in four Gospels, by two apostles and two early disciples, with some comparatively unimportant, but yet invaluable, commentaries and illustrations by other hands, approved by their opportunities, and the Spirit of God which moved them, to be very well fitted for their several parts. That story of a life has, as you and all men know, revolutionised the world in the only good sense of the phrase, and, from a chaos which was almost wholly dark and downward in its rush, brought out another chaos indeed as yet, but at the very least an illuminated one, which can look up from many a bright spot in its darkling sphere, and see to arrange itself by slow but sure degrees into a heavenlike temple of universal faith, universal hope, and universal charity : but the greatest of these is charity. The beautiful vision is being realised around us even now, although we cannot understand the process wholly, nor count how many long years, or epochs, of transition, with its working and counterworking of a thousand forces, have yet to make out the nonage of the world, and bring in the millennial consummation. Such, however, in the meantime, is the resistless fashioning power, and its infolded destiny, which has been incorporated in the book of books, well called the Testaments, the gracious legacy of the Immanuel, Jesus of Nazareth, and all the godly recorders, seers, and analysts who ushered the Prince of Peace into this life of time, and bore His train as He passed away again into eternity ; of which we know nothing certainly, save that God is just and good.

Seers and analysts, I say ; and you wonder at the latter name. Analysts ! Are there any scientific writers in the Bible ? is there human science there ? Is not Christianity a religion of faith, eclipsing all science, falsely so called, by its peerless glory, as the sun of day puts out the gleaming stars of night ? Have Christians anything to do with your ' Victorious Analysis ? ' Yes, Brothers ! Christianity is a religion of faith, and of hope too, be it remembered, and charity ; charity, which thinketh no evil ; and hope, which is not ashamed to look forward to a more blessed time in eternity, when it shall see God face to face, and know Him as He is. It is a religion of faith : poor inadequate Analysis would have toiled on to all eternity, and not made out the discovery of the being of God, the existence of the very world without, even the ground of its own self-confidence ; but a thousand thousandfold less, if there be degrees of sheer impotency, could it ever, ever have found out the mystery of the Divine Man, and His infinite secret of salvation. No man that ever sinned, and bled sweat and tears of blood for sinning, knew this more deeply than the inspired analyst, Saint Paul, of whom and whose way of writing about religion we are now to speak for a little ; and, I tell you once for all, not a childlike sage of the clearest telescopic vision, nor lowly Christian peasant, with well-thumbed Bible and healthy natural eyesight, can more thankfully apprehend the same, than the uninspired analyst who now addresses you ; for if he sees anything, from the sun to the paper lying before him, it is the blind and paralytic powerlessness of analytical research in the sphere of faith. But then the sphere of faith would not be known to us as the sphere of faith at all, but for analysis, which, in a negative manner, as we shall find, discovers that faith is

faith, and nothing else ; otherwise, it is an altogether unconscious faith, potential enough, blessed be God ! potential to all purposes of time and time in eternity, but still not known, even by the most faithful, to be as different from analysis as the sword or the scalpel from the hand that holds it.

To illustrate this by an analogy : We believe in the existence of the material world by faith, believing we unquestioningly do, and in some measure refrain from doing, whatsoever is necessary to our salvation or safety in it ; and thus we are physically saved by faith, and such works as that living faith produces. From the instant of Adam's creation it has always been so ; faith in the contingent reality of things seen, heard, and otherwise perceived, saving men from physical ruin, everlasting in its way, in all ages ; but it required a Thomas Brown to decry that faith is in this way the very foundation of even this physical life of ours. Having turned analysis outside in, and found it void of proof, or even presumptive evidence, of the existence of the visible universe, the analyst was forced to refer his immovable belief to a ' law of our nature,' as he calls it in the language of his school. Even at this time of day, very few know this first tenet of universal faith ; and Lamennais and others absolutely need proclaim it in so many words yet. But suppose it universally recognised, would the belief itself become less powerful as a principle of action because analysis has discovered its deep foundation ? Nay ! it has enhanced the incomprehensible sacredness of even physical duty. Avoid that raging torrent, do not walk into these curling flames, come out from beneath that toppling crag ; or else it will hurry thee away to death, they will consume thee irretrievably, it will crush thee to dust : How God animates every

movement of the unconscious subject, Man, by the unheard but effective whisper of faith! Is it nothing to give that still small voice a body, and make it audible? Is it not rather a magical achievement to change all the studded canopy of heaven into one vast whispering-gallery, resounding the call to faith in low melodious tone by a word? Analysis does this.

To say the truth, however, analysis can do very little for us; for a short way beyond every point of the immense periphery of universal nature, it is resisted by impenetrable darkness, as of pitchblack marble, which will not be analysed. Faith is very strong, and can remove mountains; but it is not almighty even in the little domain of the human spirit, though it is nearly so. In fine, in order to make any object as intelligible as it is capable of being rendered, faith and analysis must work together, as the sun and moon combine to illuminate the earth; the moon meanwhile modestly acknowledging her dowry of radiance to the sun himself, the only independent source of light, whose celestial ray it is that kindles all the smaller orbs which revolve and sparkle round his central blaze. Hence Saint Paul tried to give a reason for the faith that was in him, and would have others do the same. Hence Victor Cousin, and others before and after him, have been busy maintaining, these latter years, that the mysteries of Christianity are given us under forms quite adequate to the wants of the many as they are, which it is both right and dutiful for the few to approach with reverence and strive to unveil. I say nothing of the manner in which he, whom I have particularised by name, has striven, and its results; but his principle is surely good, and if analysts will only approach the sublime theme from the centre, and not from the circumference—from the side of the internal

objects of faith, and not the outward objects of analysis—they will do more towards the general spread of a catholic Christianity than has ever been endeavoured since the days of the Apostles. They must likewise always remember the difference between Christianity the life, and Christianity the theory of life, else their efforts cannot be blessed. Heaven speed the work!

St. Paul is the first analyst, or scientific author on Christian theory; and of his work in that capacity we have a splendid instance in the chapter from which our golden text has been taken.\* Throw your eye over it, and see how he unfolds his thought. The elders, the conquering men of the old time, become venerable by their very antiquity, and ever memorable for their unflinching manhood in the hour of sore trial, had obtained a good report by gladly hoping for things not seen, eternal in the heavens. The apostle of the Gentiles, forced by the nature of his mission to ponder how his doctrines could be best grafted on whatever of good and true there might be found in men's preconceived systems, reflected on the secret of the faithful old life; sought far and wide, higher and deeper, for the 'substance,' or ground, on which their hopes reposed, and, after spending his eagle strength of wing in vain, discovered that there was none—no comprehensible foundation for their deathless confidence. There is no intelligible, measurable, ponderable evidence, not even presumptive court-of-law evidence to be found by searching: FAITH is the only substance of things hoped for, the only evidence of things

\* Heb. xi.—'Now faith is the substance of things hoped for, the evidence of things not seen. For by it the elders obtained a good report. Through faith we understand that the worlds were framed by the word of God, &c.

not seen. But is that 'only' little? God forbid! it is the very greatest of all 'ground' and 'evidence;' deepest rooted, immovable, and impenetrable rock.

Again, the ancient recorders, who wrote the narratives of the Creation, which Moses afterwards put together, one after another, at the beginning of his own book of Genesis, did not investigate: they simply and solemnly announced that in the beginning God created the heavens and the earth, having seen so far into the mystery of material objects and phenomena which a Christian poet of our own day has sung as

'The silent magnanimity of nature and her God.'

All following historians, prophets, and poets in the sacred line, had taken the relation of the visible universe to the unseen Jehovah as a thing which needed and brooked no proof—how manifold, O Lord, are all thy works!—nor ever knew, in the truth of their believing loyalty, that they had done what the faithless mechanical philosophy of the eighteenth century of a Christendom was to think it had discovered to have been done amiss. Then, not to speak of the Divine utterances of the Christ himself, Saint John speaks from the living heart of inspiration, without either doubt or scientific question, In the beginning was the Word. Who knows but this unconscious, but irresistible belief, was the better? But for Saint Paul, and his vocation in the world, this was not enough. No sceptic was he; tempered and impenetrable as a sheathing of triple steel was his faith; well as he knew anything, did he know that God is the beginning and end of all things; but how did he come to know and believe it so immovably? that was the question for him. He flew abroad everywhere, dived deep and soared high, looked and listened everywhere for

some sign or sound of the mystery ; but none was to be seen or heard. Yet, that one theorem solved, a hundred others would be clear as day ; but, alas ! there was no solution ; pretentious solutions, *a priori* demonstrations and arguments of design, vanished in air before his keen analytic glance ; there was no evidence, it would appear. His weary eye turns in upon himself ; and there it is, lucid as light : It is through FAITH that we understand that the worlds were made by God ! Our fathers, of whom we cry, ‘Where are they ?’ had the same ground for their duty-producing hope of things unseen as they had, as we have, as any man ever shall have, for the being of God and His creative attribute : Was it not stronger than adamant ? A seraphic proclamation this to every succeeding age, which has been sadly neglected and insulted in this of ours, with its arguments *a posteriori* and Bridgewater Treatises.

This is Saint Paul’s great discovery about faith, the greatest of a merely scientific kind that ever was made. All the faithful before him had known the subduing power of faith ; the great Teacher had spoken much about it ; but it was this greatly gifted man’s commission to discover it, as we say, to unfold its far and near analogies, to show it in relation to all its different objects, from the contingently real world of outward appearances up to eternal Godhead and Immanuel themselves, and to assign it its fundamental place in the microcosm of the human mind. A noble mission, too, it was ; for mark ! he stands like a good soldier of the cross on that rock of ages, and throws down the gauntlet of an earnest pitying defiance to all deniers of the Christ and his gospel in time to come, saying, ‘You cast away our message of truth for want of evidence, forsooth, and trample our pearl under foot ; tell me, tell the world, tell



yourselves, what feasible evidence you can produce for the being of God ; or if you deny that too, for the existence of the very universe of stars which you hug to your bosoms so fondly ? Is it, too, a superstition ? Nay ! you cannot live without one reality ; and I beseech you, by your hold of that one, to see to the others ; they may not be shadows after all.' And, O what speechless solace and courage does the manly challenge, sounding through eighteen hundred years, impart to the half-fledged honest thinker, who had else quit his faith in God, and gone wandering about the dreadful universe in despair, weeping aloud !

Such is the analytical process by which the apostle arrived at the sight of the function of faith, the power of which he knew far otherwise than by investigation. Faith itself cannot be analysed ; it can only be seen after everything else has been thoroughly sifted by analysis, and blown out of the way ; objectively considered, it can only be known by negation ; that it is belief, not founded on 'ground' and 'evidence,' in the common meaning of these words, is all that can be said. Experimentally, on the other hand, faith is clung to by all men in respect of one object at the very least, and its foundation is broader and deeper than space itself. Who ever wholly disbelieved that there is a world without him ; or, at least, that there is reality neither without nor within him ; or, rather, who ever believed absolutely nothing ? And on what 'ground' does this last refuge of a solitary belief rest ? Surely on nothing, or an immensity ! The gospel of the Christ is built on the same foundation.

We need not follow our apostolic correspondent through the remainder of the chapter. Suffice it, he proceeds to display a number of the practical analogies of the faith he came to preach, and especially exhibits it as the soul of heroic acts of valour by the worthies of Old Testament

[illegible]

and addressed all kinds of men : for the superstitious  
and the dignity of a titled reason to assert : for the  
poor the passion of Divine charity to renounce : for  
the sceptic an analysis, as we have found, so searching  
and terrible, that after confessing his own insufficiency,  
he accepted the light of truth : nor he never forgot the  
good and of his location, and always voted for all when  
he seemed to unite for me. We have all to lead a life :  
he negations the sectarian, the sceptic, the utilitarian,  
we all need a saviour : there is no difference there,  
yet such a monstrous similarity, that it swallows up all  
the social distinctions of society. Our gifted analyst,  
as we call him in this discourse, knew this well if not  
better than perhaps any other man ever did. 'Oh !  
wretched man that I am !' he cried. He found a law  
in his members warring against the law of his mind.  
Nothing so this common, and often commonplace enough,  
contentiousness of our fickle nature, a fierce fight in  
thy breast ? It was horrid war in Paul's ; and he  
groined aloud to the universe in his extremity, Who  
shall deliver me from the body of this death ? Who ?

Is not the atomism of these asunder-tearing forces

the very greatest achievement for us all, and infinite in its greatness? Every one of us, who does not feelingly know that this is the problem he was sent hither from the abyss of infinitude to solve in the sight of the whole creation, only shows that he is no longer a man at all, and needs be raised again to the manhood he has fallen from, before he can become Godlike by the renewing of his will. To know our duty, on the right 'ground' and 'evidence,' is the first part of Christianity; to do it with all our might, is the unavoidable consequence of such knowledge of it. As for the *rationale* of Christianity the life, we can never understand it; but if we succeed in any measure in the practice of it, we shall be glad to bless God, who worketh in us to will and do according to His good pleasure: Shall we not?

Let us now see how Abraham knew that it was his duty to offer up Isaac, and observe how manfully he lacerates his heart and flesh to do it; and, in that way, both see a little farther into the apostle's theory of faith, and learn a lesson of rough, but true, and invincible goodness.

There are few stories more princely in themselves, or more beautifully told, than the life of Abraham by Moses. The social, moral, and intellectual, or in one word, the spiritual horizon, however, in which the liver and the narrator lived and told, was so entirely different from that on which we look round now-a-days, that it demands an effort so to sympathise with the history, as to understand its real import in relation to the theory of life. In the book itself, too, we have the minds of Abraham and Moses combined, as it were, and the product is the Mosaic ideal of Abraham's way of living; a model full of instruction.

In youth, he takes his sister Sarai to wife—a fair woman to look upon ; but she is barren, and has ‘no child,’ it is said. Their native land of Ur cannot hold everybody ; so old Terah, their father, goes forth with them into the land of Canaan—new settlers in a strange country, having to make their way as they best can with their herds and flocks. Terah dies at Haran. Abraham is now the patriarch of a growing household of kindred and dependants, and the master of great possessions. It behoves him to be up and doing now. He meditates what he will do. The new patriarch is a man of energetic individuality of character. His strong heart is fit to be the first strong heart of a people. Stirred by his inward consciousness of strength, he even dreams of coming glory as the fountain of a great nation, destined to flow out with blessings on the green face of the free world that is all before him. Ah ! how can that be, since his fair wife has no child ? But it behoves him to go forth ; such going forth is the law of the time and scene, in which he must live and let live ; and he is strong and fit to try the world, fitter than any ; it is his duty, and he will do it. Shall he not go forth full of hope ? Shall he alone, of all men, address himself to the task of life without any cherished ideal of earthly bliss laid to heart ? and there was no other than this of originating nations, and branching out into futurity, for heroic men to cherish then-a-days ; and is not such ideal, to all men, only the image of eternity flickering in the troubled waters of time ? Shall he not rather trust in God ? Does he, weak man, know anything of Heaven’s will concerning his Sarai and himself ? Who knows, save that God is good ? Yea ! what has he to believe, if not that ? He must, and will believe it ; it is the voice of the Lord ; ‘So Abram departed, as the Lord had

spoken to him.\* Strong as death is the gentle patriarch's faith in the benignant purposes of God from the very first.

This is a picture of his whole inward life. In all his wanderings, he knows God to be no idol creature, but great and good, the greatest and the best, the infinitely great and good ; and he goes everywhere unto the place of the altar, and calls upon the name of the Lord. In every juncture of his affairs his question is, What is right to be done ? a question of duty, which is all in all to him, being of incalculable significance ; and he essays to do what God tells him is right, like a man, and never shrinks ; for it is his errand to do the will of God, and the image of duty which lies clear in his heart of hearts is that will of God, which he must enact, or be lost. The unfathomably deep earnestness of this lordly man, and others, his peers, written down in this book of books, and so long preserved by the wondrous providence of God, tells us and all the world a lesson, which it is at our peril if we neglect : 'Whatsoever thy hand findeth to do, do it with thy might ; for there is no device nor work in the grave, whither thou hastenest.'

Is there nothing puerile in this conception of the patriarchs, that their own prayerful, ineradicable sense

\* Genesis xi. 27.— . . . . 'Terah begat Abram . . . . and Abram and Nahor took them wives: the name of Abram's wife was Sarai . . . . but Sarai was barren and had no child. And Terah took Abram his son, and Sarai his daughter-in-law ; and they went forth with them from Ur of the Chaldees to go into the land of Canaan. And Terah died in Haran. Now the Lord had said unto Abram, Get thee out of thy country, and from thy kindred, and from thy father's house, unto a land that I will shew thee : and I will make of thee a great nation, and I will bless thee, and make thy name great ; and thou shalt be a blessing : and I will bless them that bless thee, and curse him that curseth thee ; and in thee shall all families of the earth be blessed. So Abram departed, as the Lord had spoken unto him.'

of duty was the will, or living voice of God ? Far from it ; it was the height of manhood, if you will only think of it. Conscience is not a balance to weigh good against evil ; understanding, memory, perception, sensation, have nothing to do with it ; nor can it be proved, in any logical way, that duty must be the infinitely best thing for a man to do. The line of duty cannot be described *a priori* ; cannot be discovered by the induction of particular instances ; and there is no other way than these two for the human mind to discover, and tell itself the truth. What, then, is conscience, which bids us do this good thing, and withhold from that ill, and do or not do at our own endless risk ? Is it *not* the living voice of God ? Besides, you must always bear in mind that Moses wrote for a people living under a visible form of Divine government or theocracy, and for all the people in many ages to come. He likewise composed his noble books in the light of the past, and, knowing all that had come out of Abraham and his doings, and how signally he had been approved by the ensuing providence of God, he speaks with the confidence and predisposition of a historian of the good man's faith in the future. In truth, before any of us can really change hearts in imagination with these elders of the world, we must change heads too, and unlearn all that is either useful or useless, or worse than useless, of what we now know ; for the latter centuries of Europe have shown that according as analysis, with all its conquests, has waxed, faith with its priceless heritage has waned ; although, now that the eloquence of the apostolic analyst has found an echo here and there in the modern world, there is at length some distant prospect of the glorious union of faith and thought. Meanwhile, think of the entire absence of anything like analysis, and of anything like a

consciousness of faith in a very strong and faithful man like the patriarchal Abraham, with his ebullient oriental blood, and quaint but impassioned soul. What a spectacle for the like of us to look upon !

So went the good man on his way, journeying always, increasing wealth, building altars and planting groves, fathering Ishmael, entertaining angels unawares, reaping the reward of his faithfulness in the person of Isaac at last, conferring with Melchizedek, dealing with princes, and, alas ! burying his dead out of his sight, then producing sons and daughters from Keturah and his concubines ; till at length he is gathered to his people. Through all his unresting but dignified life, he approved himself endowed with a true eye for the path of all holy duty, and a resolute will, for the most part, to walk in it ; but, above all, a passionate unparalleled faith in the Divine origin of his own dutiful impulsions, whenever they could not be traced to any intelligible source, and accorded with the general theory of religion in which he lived and moved ; a possession, the last, of which, to be acceptable in the sight of God, unconsciousness is an essential element, so that no analyst can ever acquire it. These three things, or rather the one of which they are the constituents, make up the whole religious character of Abraham, being the gospel which he preached by his life. It grew up by natural process, aided by the changing circumstances of its outward relations, to be the law and the prophets ; till it culminated at last, and was expanded into the glorious universal gospel of the life and death of our Lord and Saviour. By the life of Jesus, we mean all He taught by word or deed ; and by His death, all He suffered so to teach ; for, cling you to what scientific hypothesis of the facts of Christianity you will, Romanism, Lutheranism, Calvinism, or which

you will, although they certainly cannot all be wholly true, there is no doubt that they are all true enough for the one main thing, a pious life, and the practical meaning of them all is, that the Christ is continually teaching us how to live and die. This threefold principle, which we recognise in the piety of the venerable patriarch of the Jews, is indeed the very kernel of both Judaism and Christianity, although the expression of it has to be altered to circumstances, and will always have to be so; and hence it is with singular propriety that Paul adduces the faith which empowered Abraham to stretch forth his hand, and take the knife to slay his son, as the fit analogon and mirror of that fuller faith, which he came to preach.

It is a strange episode in the story of Abraham, that which the apostle instances. Think of it. More than a hundred years old; a good deal more. Deeply conscious of a thousand short-comings, as how could a prayerful soul of large experience like him, and an eye of faith so susceptible that God spake to him face to face, fail to be? An old man now, full of sins; a long life, in which he could see little that was good, however he might shine before men; a long life behind, a sepulchre before him. Does he not need throw himself upon the loving-kindness of the Everlasting God, and be saved by sovereign grace?

Sacrifice has been all his days the language of prayer for him; burnt-offerings on memorable occasions. Ah me! is not this a memorable time? A dim-lit life's vista to look back upon; a dark sepulchral cave, and whatever that might mean, to anticipate in wildering alternation of hope and fear. But what sacrifice, what? Has he not offered a hundred thousand times, and yet



found no 'assurance of salvation,' as too arrogant men are prone to find so easily sometimes? Oh, what shall he render? What word utter in sacrificial deed, any more than a Paul with his 'groanings that cannot be uttered'?

Light dawns on his dark inward conflict, one ray of hope. What does he love the most of all his great possessions; for is not that the same question? Round which have his heart-strings been the most idolatrously bound? And he will give it; that is his duty, and he must do it. He bethinks him, what? Woe is me! It is his young Isaac, the only son of beautiful Sarai, who long ago became the wife of his youth in their birth-land of Ur, but had no child till God gave her this: and his old frame cracks, and rocks again to its rooted centre of faith in the fell struggle; but shall HE shrink when he is called? The cup that is given him shall he not drink?

FATHER! GLORIFY THY NAME.

Surely it is not wonderful that a true-hearted man like this, on Mount Moriah, should discover, like a sun-flash, in the moment of worshipful anguish when he was a-thrusting the knife into the side of his only son whom he loved, that God, who judgeth the heart and loveth a cheerful giver even as an Abraham loves an only son, no longer required such a sacrifice at his paternal hand. The imperial sense of duty, with its eternal dependencies, known and willed into act by faith in God and his own conscience, was appeased; and, BY FAITH ABRAHAM, WHEN HE WAS TRIED, OFFERED UP ISAAC. About his great emotions when he lifted up his eyes, and, behold! behind him a ram caught by the horns, we can only be silent: 'My son, God will provide himself a lamb for a burnt-offering.' In truth, I would have been ashamed

to have said so much, but for the purpose in hand. The Mosaic narrative needs no paraphrase, and cannot be bettered in any way.\*

A word more on this subject. Suppose Abraham to have related this passage of his inward life to the gentle Isaac, what phraseology would he use? Isaac many a time dwells fondly on it with Rebecca and their sons—as we remember to have seen our own beloved fathers hang, with what seemed to us a most ideal love, though very beautiful, over oft-repeated stories about our grand-sires; and so it is handed down through all varieties of fortune, till it assumes its present graceful form in the

\* Genesis xxii.—‘And it came to pass after these things, that God did tempt Abraham, and said unto him, Abraham. And he said, Behold, here I am. And he said, Take now thy son, thine only son Isaac, whom thou lovest, and get thee into the land of Moriah; and offer him there for a burnt-offering upon one of the mountains which I will tell thee of. And Abraham rose up early in the morning, and saddled his ass, and took two of his young men with him, and Isaac his son, and clave the wood for the burnt-offering, and rose up, and went unto the place of which God had told him. Then on the third day Abraham lifted up his eyes, and saw the place afar off. And Abraham said unto his young men, Abide ye here with the ass; and I and the lad will go yonder and worship, and come again to you. And Abraham took the wood of the burnt-offering, and laid it upon Isaac his son; and he took the fire in his hand, and a knife; and they went both of them together. And Isaac spake unto Abraham his father, and said, My father: and he said, Here am I, my son. And he said, Behold the fire and the wood; but where is the lamb for a burnt-offering? And Abraham said, My son, God will provide himself a lamb for a burnt-offering: so they went both of them together. And they came to the place which God had told him of; and Abraham built an altar there, and laid the wood in order, and bound Isaac his son, and laid him on the altar upon the wood. And Abraham stretched forth his hand, and took the knife to slay his son. And the angel of the Lord called unto him out of heaven, and said, Abraham, Abraham. And he said, Here am I. And he said, Lay not thine hand upon the lad, neither do thou anything unto him: for now I know that thou fearest God, seeing thou hast not withheld thy son, thine only son, from me. And Abraham lifted up his eyes, and looked, and, behold, behind him a ram caught by his horns,’ &c.

Genesis of the quiet, and eminently conceptive lawgiver of the great patriarch's descendants. Ask yourselves, how could it have been preserved otherwise than as it is, say as an analysed spiritual phenomenon, such as I have shown you? And if it, and all the world-old ark of faith of which it is only one beautiful gem, had not been transmitted from age to age, where had Moses and the Prophets been with their indignant defiance of idolatry; where, with reverent admiration of the good providence of God be it asked, the ever-blessed Christ and his crowning gospel; Paul and his adaptation of that gospel to the human mind grown analytical; the partial regeneration of the Roman empire for the wisest of purposes; the impregnation of Europe with an inextinguishable germ of Christianity before the roaring torrent of barbaric hosts could come and sweep it away for ever; and the Genesis of our growing Christendom, with its restless energies unconsciously struggling towards repose, like a giant in troubled sleep, who will awake, wonder at his garish agonies, and walk forth in indomitable strength? Moreover, but for this riverlike spiritual history of our marvellous age (for every age is its own greatest miracle, as every man is his), there had been no need of translating the language of unconscious faith, employed thirty centuries ago by a desert legislator, in telling his wandering people how their valiant ancestry had stood to the fight of life, into the phraseology of analytical fidianism, in order to fill the aching void which now yawns in many an earnest heart between the scepticism of the last century and the ultra-fidianism just opening on the present. Such manner of translation is the next thing theologians have to do to meet the hungry necessities of an army of inquirers, fearfully dead to the irrefragable reality of religious duty, though

it has given over infidelity, and wanders about in dreadful uncertainty, not knowing what to believe and do, as well it may, in the midst of such spiritless interpretations almost everywhere. Let the example of Saint Paul be strenuously imitated by the leaders of the host, whose high and bounden duty it is, like him, to adapt the doctrine of the gospel to the accumulating results of general investigation in the successive times in which they teach ; and that not by any kind of trimming of the everlasting word, but by so producing it as to satisfy every ear that it is in the divinest harmony with every other true word that has been spoken. The apostolic leader did this for Jerusalem and Rome in his day ; let them try to do it for Europe in theirs. He has shown the way, having gone as far as there was any need for when he lived ; but they must not ignobly stop where he has left them, seeing everything else has advanced so far, and so many new spiritual appetencies have sprung up to be appeased. No ! cased in his invincible breastplate of faith, and armed with his two-edged sword of spiritual discernment, let them bravely stand to every danger, and grapple with every difficulty like the ministers of salvation : So accoutred, it is not in man to dare enough. Alas ! cowardice in this task was the proximate cause of the withering unbelief which even yet broods over the face of British society, though it has unquestionably begun to pass away : And I tremble to see the same cowardice now becoming the source of a diluted universal fidianism ; a new misbelief, which is almost as different from the specific faith of Christianity, and the clear faith-philosophy of Saint Paul, as infidelity itself. Ay ! and it has produced a more fatal curse than even these ; a kind of mole-eyed half-belief among the multitude, who have not strength enough to fling themselves off the rock

on which they were born, clung to by them not in fear or empyrean hope, but solely because they cannot venture away. This is the worst state of all. Why, Infidelity and universal fidianism both meet Christianity half way ; the former asserting the right of analysis which Christianity admits, and its failure in discovering either God or salvation, which Saint Paul pointed out long ago, though with a very different conclusion ; and the latter proclaiming the supremacy of faith, which is the foundation of the universe, and on which Christianity is reared. Take even poor thirsty Materialism, spite of all the contempt which has been heaped upon it by half-believers of every grade, and I will say it is better than such religion. Does it not ennoble matter more than it degrades spirit, and deify the visible universe more than it unthrones God ? Reply charitably. What is matter ? An aggregation of atoms : and what is an atom ? A centralised force of repulsion : and what is force ? Can you see, any more than poor Materialism with its one eye ? But, be that unfathomable mystery as it may, the Materialist has, at least, thought about things ; and the spiritual and physical phenomena of the universe are the same to him as to you ; so that if he feelingly assign them all to matter, what a Divine-seeming power must MATTER be to him ! and how superior to the drivel of complacent half-belief, which has never thought at all, but assigns these phenomena to a name. Yes, brothers ! half-belief in the blessed Bible, especially when mistaken for full faith, is worse than either infidelity or general fidianism ; and, from a somewhat copious experience in different countries as well as in many different classes of society, I infer, and believe, that among the younger men there is almost no other than such sleek half-belief now extant in Great Britain. Catechise them about God's dealings with the Jews,

prophecy, miracles, salvation by faith, or the incarnation, and you will see. They neither believe nor disbelieve in the very devil : but how can it be otherwise, if no one will tell them what the book of books wholly means, that they may know what they are to believe and do with all their might ? This is the urgent problem for the Church to try. For the sake of the glory of the Everlasting, and the wellbeing of man, let it be solved.

We must always deduce some useful rule of life for the hour of trial from our Sabbath-evening themes. Such instruction is not far to seek to-night.

It is a serious thing to die : ay, but it is more serious still to live. This world of ours is no opera-house for lightsome plays of many-coloured life, or battle-field for crowns, or hunting-ground for wild sports, or warehouse for merchandise, or arena for shows and games of competition, or university in the commonwealth of stars for all kinds of study, or even a pleasant land of homes for domestic quietude ; nor yet is it a sink in the galaxy of sun and planets for loathsome frolic, nor an hospital for the diseases of the universe, nor a treadmill to grind poor man in : nay ! it may be all these together by sufferance of the Creator, but it is a myriadfold more by His grace. Here we are : but whence have we hastened hither ? and whither are we hurrying away so fast ? Analysis cannot tell. Faith can only say, From God to God again. How shall we best return to Him from whom we have come forth ? By the path of duty, according to the universal faith of mankind : but where is that narrow way, that we may know to enter ? That, the specific faith of Christianity alone can teach, few and simple though the details be ; but the subject in hand relates to only one of these. The religion of Abraham was the religion of boundless

allegiance to infinite Godhood, as revealed by indwelling conscience ; the written law having not yet arrived.

Believe in God, not by mock evidences and dead demonstrations, but by faith ; believe in the infinitude of duty, and that, too, by living faith ; and I defy you not to strive with agonies as great as Abraham's to discharge the obligation, even as you fly from devouring fires in the existence of which, and their destructive power over your shrinking flesh, you believe by faith too, as we have seen already, and shall illustrate at length some other evening. All the difference between Abraham and you, on the one hand, and between yourselves as conscious creatures living in an inward world, and yourselves as sentient inhabitants of a solid external world, is one of faith. Believe in the incomputable obligation of moral duty, say the duty of doing justice, as earnestly as the shipwrecked mariner believes the raving sea around him to be a hungry grave ; and you will either struggle to do justly, or give it over in despair, and be lost. It is not enough that, upon occasional reflection, or in transient moments of insight, you say, I believe in God and duty : you must believe without reflection, and as instinctively, unfailingly, and irresistibly, as you believe in the thirst by which you are consumed, and in the healing waters by which alone your thirst can be assuaged. This is living faith.

This threefold object of faith—God, conscience, and duty, which unites them—is the first stone of our most holy religion ; we shall afterwards see how the second and third were successively added ; till the chief corner-stone itself was laid. Nor is it ever superseded, but shall be at the bottom of every Christian life till the end of time. **WHATSOEVER A MAN KNOWS TO BE HIS DUTY AND YET REFRAINS FROM DOING, BE THE THING EVER SO LITTLE**

OR THE TEMPTATION EVER SO GREAT, IS A DEADLY SIN, AND THAT INDEPENDENTLY OF ALL WRITTEN LAWS WHATSOEVER; DEADLY, FOR EITHER DUTY HAS NO MEANING AT ALL, OR ITS SIGNIFICANCE IS IMMENSE AND ETERNAL. This is the great common law of all religions, whereby, according to St. Paul, the heathen are a law unto themselves: it is the beginning and end of Christianity as a code of practicable principles: towards this have we all to strive, honestly to be and do all we believe we ought to do and be. Oh, let us be brave in this fell conflict of conscience and rebellious passion: there is no other warfare to try it in, no fiercer enemy to cope with, no more glorious victory to win; and defeat will be irretrievably terrible to dree. Sinner! it is to no purpose that thou dost not feel it to be a fight at all; it is the worse for thee; the foe has thrown thee into a false slumber by some deadly stratagem: awake! buckle on thine armour, stand to thy post, heed not thy gaping wounds! Ah me! thou groanest aloud in pain, bleedest too much, madly staggerest in the unequal contest, reeldest to the ground a hundred times: who is sufficient for these things? Is there no help?—Yes, poor struggler! endure a little longer: there is an ever-welling fountain of grace to refresh thy broken spirit, a helmet of safety to wear, a breastplate of faith to put on, a sword of subtlest edge which even thou mayest wield, and a rock of promise for thee to stand upon invincible.

Such, my brothers, is the maddening rout, of light battling with victorious darkness, on which the Sun of Righteousness has arisen with healing in his beams: a consummation memorable in the annals of eternity!



No. II.

THE ARGUMENT OF DESIGN EQUAL TO NOTHING;

OR,

NIEUENTYTT AND PALEY *versus* DAVID HUME AND SAINT PAUL.

BY FIDIAN (LATE VICTORIOUS) ANALYSIS.

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A FEW WORDS OF GRATITUDE, INTIMATION, AND

CONFIDENCE TO THE READER.

GENEROUS READER! now that I am fairly afield, I beg you to believe that every word I shall say about the mysteries of the most holy Religion of Christendom, is ground out of me by the forces of that universe of sensation, consciousness, and conscience, athwart the conflicting light and darkness of which we are both wending our rapid way towards the true immensity, with its everlasting alternatives of good or ill. That is my part of our mutual task; and, let me remind you, it is yours, either to make sure that your companion is one of a company of men who have no eye for the beauty of truth at all, or give earnest heed to our sincerity.

One other word or two; and altogether in my own name now. Since the publication of our first number, a curious circumstance has occurred—nay, I would not have your curiosity too much excited, for, after all, it is a very trifling thing, and may annoy rather than in-

struct, or even amuse you. Everything, however, has its significance, and this may have its meaning too, both for myself and my reader; so it had better be mentioned and dismissed. Besides, the particular and the special are always true types of the general and the universal: so that what I have to record about my private life will stand for some part of the great history of mankind, if it be told aright.

Well! you must know that Christopher Analysis, my reverend father, was essentially a man of faith, but was not aware of it. I would describe him as a thin, dark, yearning man, who worked hard and humbly all his days in the 'service of Christ,' and was sustained under the load of his meek labours by the incessant pulse of a strong heart of faith, without ever knowing he had such a heart at all: like an old Hebrew man of God, in this respect. There was this essential distinction between the Abrahamic kind of faith, however, and his: both unconscious, the former was quite unaccompanied by anything like analysis, as we have seen and admired already; while the latter was absolutely hidden from its possessor, though not from Him who 'seeth in secret,' by the overgrowth of modern science. Standing before the altar, he loved to pursue the planets in their invisible pathways round the sun; to track the flowing blood of life, from heart to heart again, through the myriad smooth channels and ducts of the alembic circulation in his own surpassing frame; and thence to think that he inferred the existence and attributes of a God, to the great corroboration of the truth of Revelation. I remember how he would lead me away, yet a child, to some expanse of seaside sand, when the tide had ebbed; draw a three-foot sun with his staff; put on all the planets, satellites, and comets at their right distances, and of

their proportional sizes ; trace their manifold interweaving orbits ; and then, with glistening eye now upturned to the blazing sun on high, and now bent down on the radiated sand at our feet, set them all a-swimming in their appointed courses among the blue ether of heaven : and bid me conclude that such stupendous mechanism and exquisite design implied Divinity. Then those big, tortuous, and purpled veins on the back of his aged hand, how many a lesson about the Great Designer did he read from them, blessed characters that they were, as I sat upon his knee, with the clustering group of sisters and brothers about us, when the Sabbath-days came round. Our orreries upon the beach were swept away almost as soon as they were made ; and the substance of those distended blood-vessels, which used to be our diagrams of physiology, has long ago gone down dust to dust, melted away into the common ocean of organic matter, and sprung up anew in, God only knows how many, beautiful forms of life ; but there shall cease to be any unity in my successive days, when I forget these paternal instructions. Heaven forbid it ! for what can we be without simplicity of progress from year to year, but suicidal rebels against the deepest and widest of the laws of the very world in which we have been appointed to dwell ?

The truth is, that the beauty and magnificence of the mere external machinery of the universe, and the power of the intellectual instrumentality by which these have been expounded with such signal success in our centuries, lay too heavy on my honoured father's mind ; and that combined with his immovable faith in Christianity to produce a character, which is very nearly universal among the religious men of the present day in Britain. For example, he thought that he believed the word, and

consequently the divinity, of the Christ, because the man Jesus had given irresistible 'evidence,' in his miracles, of the divinity of his mission ; and that the proof accumulated to infinitude by the addition of the 'evidence' of prophecy, the 'evidence' of the general fitness of the gospel of peace to the constitution of man, and the like. Accordingly, his conception of the mysteries proper, such as the Holy Trinity, was that they resemble the solar system before the rise of Copernicus, Kepler, and Newton ; and that they may all become comprehensible in God's own good time, if not on earth, at least in heaven. I say he thought that such was the foundation of his belief, or rather perhaps that such might be the foundation of a right Christian belief to others ; for, after all, this was only his scientific statement of the theorem of Christianity, which is a very different thing, for every man, from the reality of the Christian life.

Abraham's religion was that of unconscious faith without any analysis, and necessarily assumed no spoken form, but could neither be heard nor seen, being his very self. My father's was the product of unconscious faith and conscious analysis, and it has been that of most reflective pious Britons since the philosophy of Locke was infused into our theology. That which my brethren have become minded to preach, with such power as may be given them, is the religion of conscious faith discovered, and then aided by conscious analysis ; and that by no means as originators, for it is as old as Paul, who was the first analytical writer on Christianity. Not as originators of any novelty, but as men who have themselves passed through every form of scientific doubt and dismay, and yearn to clear the much-obstructed passage towards the one true religion of charity, for the sake of such as may stand in jeopardy, and need their

aid ; believing that if they prove unequal to the task of doing any good in this sphere of endeavour, they shall only fail in the best of causes. Nay ! although they may at first seem to differ from every one of the many statements of Christian doctrine, which appear to the sceptic and the denier to be so many different systems of belief altogether, they feel well assured that they in reality agree with them all, in a certain high sense. Having no right to speak as theologians, they will never presume to do so. They only stand forward with the Bible on the one hand and the Universe on the other, and, as the humble readers of both these public manuscripts of the Most High, burn with the desire of doing all they can to symphonise the general theory of the latter with the most orthodox Christianity. Only have patience.

To return to my allegorical biography. You will not wonder when I tell you that, on the occasion of my birth in France, Christopher resolved to call his son Victorious, in spite of the humorous remonstrances of Old Fidian, the paternal, almost brotherly and inseparable friend of his youth. Moreover, I am sure you must applaud the patience with which I have borne about with me the hateful epithet, and never complained nor given it up, even since I abandoned universal scepticism. Indeed, my long-suffering is at length rewarded in the due course of Providence ; and this ought to serve for an example to both of us, of God's way being ever the best : for, since last November, my Christian name has been changed by a formal process of law ; and this is what I wish to speak about.

It happened thus. The good, very trustful, and consequently happy friend of my father's youth chanced to love me so dearly as to make me free of his home and

cheer, when left an orphan boy in this wide inquiring world, where I had no other to care for me. In truth, he loved me like a son ; and little wonder, for I had been affianced from the very cradle to his favourite child, Kind Charity with her tremulous blue eye of hope. Ah me ! the maid told her whispered message of gentlest amity, told it very gracefully, and then hasted away again, full of pitying love, to the bosom of God who sent her hither for a time : and I wait her return to this sun-lit vale of tears, at the second coming of our Lord, with all the rest of his holy angels. Little wonder, then, that Old Fidian pitied and loved young Analysis, presumptuous scapegrace though he was, and wept tears of joy when he heard from a far country that his ward had, by favour of Heaven, wholly changed the theory and practice, or in one word the meaning of his life, and become like a 'little child.' Less wonder still, that, since I had already lost so much, he should resolve to constitute me the heir of his possessions ; for he was rich, and had laid up great treasures in heaven, especially one goodliest pearl, as you may understand. Well ! the faithful man has just at length been gathered to his fathers, and has willed me the priceless inheritance, burdened with the sole condition that I assume his name, and assimilate his nature to my own. Gentle Reader ! this is why I now sign myself your loving Brother,

FIDIAN ANALYSIS.

CHRIST CHURCH, TELLUS,  
*January 1, A.D. 1842.*

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For the worthy Knight could answer all the objections of the Devil and reason, "with the odd resolution he had learnt of Tertullian : *Certum est quia impossibile est*. It is certainly true, because it is quite impossible !" Now this I call Ultra-fidianism.

Again, there is a scheme constructed on the principle of retaining the social sympathies, that attend on the name of a believer, at the least possible expenditure of belief ; a scheme of picking and choosing Scripture texts for the support of doctrines, that had been learned beforehand from the higher oracles of common sense ; which, as applied to the truths of religion, means the popular part of the philosophy in fashion. Of course, the scheme differs at different times and in different individuals in the number of articles excluded ; but, it may always be recognised by this permanent character, that its object is to draw religion down to the believer's intellect, instead of raising his intellect up to religion. And this extreme I call Minimi-fidianism.

COLERIDGE'S *Aids to Reflection*, Fourth Edit., 1839, pp. 151, 152.

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BROTHER ! you were born into the world between sore anguish and hearty joy, your entry into life having been hailed both by the cry of solitary pain, and the voice of crowding gratulation. You were nursed among alternate tears and smiles, now nestling in a mother's bosom with the clear eye of love upon you, and then sprawling in some spasm of infancy, refusing to be soothed. Your childhood was a sunbright chain of merry ringing days and sleepful nights, yet many a one of the golden links was soiled by the stain of early suffering and sorrow. Lightsome boyhood may have been a joyous time of every kind of growth with you ; swelling limbs, expanding affections, aspiring hopes, and even ambitious thoughts ; but you perhaps remember how you were brought down almost to corruption by the usurping tyranny of fever ; or how your heart was like to break when you heard some experienced matron say that sister was too good to live long ; or how your half-knit frame was riven by the rightful accusation of having partly forged some problem, to which a glittering honour was attached ; or how your poor boy's soul sickened within you when your own living sire, with his hand of love and voice of counsel, became a mere dead

body, and was buried out of sight. Then came the glorious prime of youth, with its generous pulse and bounding step; with its burning heart of tenderest love, and manly purposes of honour; its swift power of thought and plenteous treasury of overflowing utterance; and its deep and passionate love of truth, with that unquenchable thirst of glory which derives its principal significance from being the unconscious tending of the spirit towards an unknown glory, honour, and immortality in the life ever young which is to come. Had not it too its weary days of malady; temples aching with the toil of ambitious strife, the languor of sensuous indulgence, or even the mad delirium of an altogether mismanaged life, finding its feverous vent as best it could? Was there no ruination of high-built hopes, your young love dying, your friend falling away in the hour of need? Had winged thought and flowing words no equivalent in the rashness of speech and action into which they continually hurried you? Did that love of the universe, such as it seemed to your inexperienced eye—material, immaterial, or both; one God made manifest, or a godless whirl—and that love of glory which was the polestar of your life's new voyage, did they never lead you wrong to your peril? Or, if you have been better fated than the most of us, did they not inflict the penalties of ceaseless moil, and impose heavier cares than you were strong enough to bear with impunity?

Such has been your way to manhood: and what are you now?—You have your more or less honourable position in the world; but does the world see your carking fears? Your domestic joys perhaps, and your domestic griefs. Your manly consciousness of individuality, as the centre of your sphere of loving and admiring ones; and the frequent sense of the ease with which some out-



ward power, or combination of forces—call my living God with His countless rays of immortality what you will—may strip you of them all, and leave you alone. Your self, too, has altered now. In childhood you often did amiss, and often knew you did ; boyhood was full enough of errors, but vivacity wiped them out of memory ; in youth tempestuous passion drove everything before it, but now it is different. You are too old to be easily cheated by the fair shows of vice ; you have become wiser at last, and bow before the public conscience if not your own ; your responsibilities are increased, and you feel the weight of them ; you have hard struggles now ; in fine, the mystery of human life thickens and thickens about you, and you cannot always be at ease for the multitude of your thoughts.

The mystery of human life ! can I know anything about it ? How came I hither ? I see infants born every day, but never was an infant to my own consciousness. I found myself here, sometimes it feels like an eternity ago and sometimes like yesterday, fearing and hoping, loving and hating, thinking, and in one pregnant word *LIVING* ; but the beginning of my true self is clouded in the thickest darkness behind me, which, for all I know, may be immense in space, and infinite in duration. And where is my end to be ? Death is all I can see before me ; say slow or quick consumption is to come with its remorseless harpies, gnawing down tissue after tissue ; hot, grinding hectic, the first and the last in the greedy train ; life must soon give way, and agonizing weakness follow ; no strength then to relieve the burdened lungs ; the blood stagnates in the delicate brain ; filmy darkness and groping hands ; insensibility, convulsive struggle of breast and throat, one gasp ; and—death. If that be all, let me eat, drink, and be merry, for to-morrow I die, and

there is neither use nor pleasure in knowing more about the giddy carnival in which I dance my drunken way from the cradle to the grave. But if birth, life, and death be only a part, whence have I been commissioned, and oh ! whither am I bound ? What is this tumultuous universe of oppressive, far-stretching sensation, multitudinous consciousness, and conscience now gently wooing and anon tremendous in its power to torture, through which I hurry like a dubious angel struggling in a storm betwixt the perennial abodes of light and darkness ? May I trust my senses, and believe that sun and stars ; earth, sea, and air ; my dwelling-place, the wife of my bosom, and those little ones ; my own seething brain, distracted ear, and broken voice, are not unreal mockeries ? Do I really live, a Will here on an errand of some unspeakable moment to myself, or am I not an individual soul, but only a morbid function of some great Unseen, with nothing to do but rack myself with these unanswerable questions as He lists ?—

### IS GOD ? AND AM I ?

These two questions infold the whole of that Universal Fidianism which apprehends God, Spirit, and Matter by faith ; reveres all that is Godlike ; is full of hope for all that is human ; and is the very stock to imbue the altogether specific faith of our beloved Christianity upon. CAN THEY BE KNOWN ?

Yes, inquiring brother ! GOD IS ; in one sense is alone, the one reality. In another sense, you too are a reality ; all things are real, and known aright only when known as such. My next discourses are to satisfy you, if I can, that all these, God, Spirit, Matter, and thereby true self-consciousness with its myriad capacities and faculties, are all alike to be apprehended only by Faith ; and, in-

asmuch as no man but believes at least one of them, to show by the mere array of the three facts themselves that it is inhuman, that is, irrational, not to believe them all. They stand, in relation to you, on the same everlasting foundation, namely, the generic faith of mankind. This fundamental proposition will be placed before you so as both to leave room for the addition of the doctrine of the specific faith of Christianity, and to display the necessity for such specific faith before you can do anything with what you know for peace here, and endless peace hereafter. After the very meekest reception of the great threefold faith of humanity, and practice of that universal hope and love, which naturally grows out of such humanising faith, 'one thing' else 'is needful:' and the second set of the sermons which you have bid me prepare will be wholly taken up with the generalities, and especially the analogies, of that one thing.

All men believe at least one thing, we say, but it may be anything ; matter the materialists, spirit the immaterialists, God the transcendental theists, self the egotists, and so on if there be more. There is thus nowhere to begin this work of analysis in answer to the question, What is true ? It is necessary to follow an artificial arrangement, and we begin with God. Objectively, however, this is genuine method, for Jehovah is the beginning and end of all to the believer.

Our inquiries, then, for a few months are three: Is God ; what ; and how known to be very God of very God ? Is spirit ; what ; how known to be ? Is matter ; what ; and how known ? These, as preparatory to the consideration of the one thing else that is needful, are the most momentous questions which living men can ask at one another ; and have been unhappily complicated by the

round-about devices of successive questioners. There was never any need for perplexity, the replies having been ready in the heart of man from the beginning; but it shall have served its good end in the economy of Providence. All right-hearted men have known these replies in the unconscious way when left to themselves: and in very modern times the strong reaction of the all-denying infidelity has raised up several prophetic men, especially in Germany, to proclaim them to the world with greater emphasis than was ever necessary or possible before. Even France, where my 'victorious' days were spent in tutelage, has produced Lamennais the synthetist, with his New Philosophy,\* which at least professes to be grounded on faith. So that I might briefly set our inquisition at rest by quoting the very words of some of them, with such modifications as I hold to be necessary. This would not do, however; because the British public, even the literary and especially the scientific, are behind their continental neighbours in this advance: they never went so far in disbelief, having for the most part kept afraid of scepticism, though destitute of faith, and are correspondingly slow to pendulate. Doubtless Thomas Brown was the first to take the right method with both the followers of Berkeley and the materialists; and our own Coleridge, Wordsworth, Carlyle, and whomsoever these may stand for, have been second to none in seeing through the unnatural demonstrations in which the conception, say of Godhood, has been hidden in these days. But the latter have rather torn away those envelopes with the strong hand of power, than stripped them methodically off with the safe care of analysis; and have, in that high act of theirs, either not been regarded even by their professed admirers, or given sore offence to some;

\* *Esquisse d'une Philosophie Nouvelle.*

their true disciples meanwhile rendering them continual incense of love and thanks, for having ministered between them and the universe. The consequence is that Butler and Paley, the twin stars of British and American Rationalism, still dominate over the Christianised and half-Christianised portion of the thinking community ; while the rest are yet either in the dim light of materialism, which is at least good and true so far as it reaches, or the false light of scientific theism, which is only idolatry of a better kind than fire-worship and the like. It is to meet this threefold necessity that I wish to inculcate universal fidianism as an analyst, before going on to the theory of Christianity ; not without the dear hope of finding that such analytical procedure, though the more tedious and technical, will also better prepare us for the advocacy and reception of Christianity itself, ‘ pure and undefiled.’ Be it observed, however, that I am not to be blamed for such technical forms and expression of thought as may be employed, for it is they, the sceptics, the partial recusants, and the universal deniers, who have rendered them necessary ; as those who are versant in the history of free-thinking in modern Europe will be aware. Blame me only for the tedium.

Proceeding to open out the threefold proposition of the object of man’s generic faith, let us first explain how the being of God is *not* to be known ; and that in two discourses, containing an analytical exhibition of the true way of believing in the ineffable and incomprehensible Being in question, and ending with a short formal statement of that way, the way of faith. Let us begin by sifting the far-famed argument of design, leaving the more philosophical schemes of scientific theism till another opportunity.

That conception of divinity to which it is too common, in these days of superannuated rationalism in religion, to think that the cumulative evidence of design enables the mind to ascend, is a scientific guess, or proposition assumed in order to render the mechanism of the world intelligible. Those who hold by it, or suppose they do, seek refuge from what would else appear an inextricable complexity of wonderful harmonies, and unintelligible adaptations in the play of multitudinous nature, in the supposition of an intelligent First Cause ; a Designer like themselves in kind, but infinitely above them in degree, of faculty—an Almighty Man. The exposition and inculcation of this argument has not been confined to the theists. On the contrary, the best authors are to be found among such as have devoted themselves to the honourable task of bringing science to the aid of revelation. The more is the pity ; for, apart from a previous or simultaneous act of faith, the so-called argument proves either nothing, or so infinitely less than the infinitude that is sought after, as to be, in comparison, equal to nothing. Pity at least for the present interests of religion ; for we cannot but believe that even this has tended, and tends, towards the consummation of that great good, which we all hope for, and love to think about. I wish to convince you that the illustrious argument of Paley and the Bridgewater Treatises is inconclusive ; that it is now fraught with danger to the success of that gospel of faith, which its promulgators profess their anxious readiness to defend ; and, lastly, that, though thus impotent and insidious in itself, yet after the reception of Jehovah by our common human faith, it gloriously illustrates his ‘goodness, wisdom, and power.’ This is our threefold topic.

It is desirable first to state the argument in the form

in which it has been urged by its advocates ; and, for that purpose, it may be well to hold up a single instance of design before proceeding. I select one of the most exquisite in the whole compass of the sciences : the law of the mutual inter-diffusion of air and other bodies which resemble it in elasticity and lightness.

Look down the steep of history, and you observe that it is long till man knows the atmosphere he breathes to be a substance essentially like the sea and the earth ; and little wonder ; it is so thin, pellucid, and evanescent. The result of his earliest thoughts, as embodied in the young languages of the world, seems to imply a supposed analogy between the invisible air and the inscrutable spirit of God. The winds are eolian powers passing through the airy and omnipresent fount of vitality, now driving in demoniac hurry athwart the scene, and now gently stirring like the breath of angels. Even they are Divine or Godlike, or come from nearer God ; and are deemed an appropriate type of the Holy Spirit himself, long after the still air has been recognised as a genuine element. ‘Thou canst not tell whence it cometh, nor whither it goeth ;’ how Jesus sympathises with the heaven-born beauty of nature, and speaks the soft clear language of her heart !

Some four hundred years before the Christ, Aristotle discovers that the ærial form is as material as the liquid and the solid are, and is substantiated in the varieties of these. He burns a chip of wood, observes that there arise flame or fire, and smoke or air, while moisture or water is deposited on the cool bodies around, and ashes or earth remains—the four ingredients of wood. This is the first methodical reflection on facts brought to light by disturbing the repose of natural form, and is thus

the true salient point of the great and subtle science of chemistry. Fire, air, earth, and water, are still the factors of dry wood, as they may be called; only later examiners find that they, too, have their elements. After two thousand years, Cavendish of England discovers the elemental water of the Grecian observer to be composed of two simpler bodies still, and so on. The Stagyrite is correct, however, so long as he keeps by his facts, but he submits to the dogma of Demetrius of Abelæa, that all kinds of sensible form are alike in essence, concludes that the ingredients of his chip are the principles of all things, and is once and for ever at fault. This is the doctrine of the four elements, which is to live so long as such, and even thereafter linger in the literature of a future Europe. The Greeks have no chemistry but this; and it is enough to stifle further investigation, not to speak of the excessive tendency of their mind towards rapid and lofty generalisation. We may yet climb to their 'highest heaven of invention,' and stand there, not upon beautiful clouds like them, but on the top of the 'everlasting hills' themselves, if we will only toil in faith. I speak of their whole philosophy.

To return: Aristotle reigns many a century supreme over a kingdom that is not his own; and the schoolmen, who follow him, do not understand his method, and perplex instead of clearing up his shadowy views of nature. They think fire and air quite different from water and earth, and indue them with the anomalous qualities of levity and omnipresence. Liquids rise in the pump when the piston is drawn up, and they explain the appearance by saying nature abhors a vacuum. At last, Galileo strikes out a truer conception of the physical character of the air, but it is left to a disciple to elaborate and establish his conjecture. That pupil, Tor-



ricelli, sees that the atmosphere is heavy in its degree, shows that its pressure forces water up the pump from below, and proves that a one-inch column of air, upwards from the surface of the earth, weighs fifteen pounds. Pascal modifies his experiments, and confirms his results. Then Boyle in Ireland, and Mariotte in France, observe that air is elastic like caoutchouc, and that according to a calculable law.

But before this the Crusades have brought the cabalistic lore of the Arabian physicians to the West, and its union in the minds of the practical with the Aristotelian physics produces a new school of inquirers, destined to be memorable in the history of the earth. The alchemists at once separate from the mathematical physicists, pursue another line of research, work out the experimental result of their common master, and sooner emancipate themselves from his thralldom altogether.

Raymond Lully begins to speculate about a fifth element, the quintessence, or predestined form ; and Paracelsus gives the vague conception that practical turn, which is to end in the extraction of the active principles of compound medicines, by the chemists of the nineteenth century. Basil Valentine adopts sulphur, salt, and mercury as simple principles from Geber and the Eastern polypharmists, but homologates them with three of the old ones : brimstone is a concrete fire, salt another earth, and quicksilver a form of water, for specific qualities were never attached to the mystical quaternion. The distinction, however, gradually becomes greater than the analogy, and there begin to be seven elements in spite of the schoolmen. At last the academies for the division of scientific labour are founded ; Homberg teaches the adepts to publish their results without reserve ; and early in the seventeenth century Nicholas le Fevre decomposes

wood in a new way. He burns it in a close vessel, collects the oil and spirit which distil, consumes the charcoal in the air, and infers that there are six elements at the very least—fire, air, earth, and water, with the spirit and oil. How much depends on this experiment! The yoke is broken off, and they begin analysing and analysing everything, torturing everything, and believing nothing till they see it. The current is changed; there are at least nine elements now; nay, everything is equally elementary for aught they can see, and all is confusion. On they hurry, many of them still pursuing a high ideal by a way that cannot lead to it, the best of them seeking nothing but attainable truth, and all of them hunting out new forms of Protean matter. At length, by the influence of the positive philosophy of Descartes and Bacon, they are completely delivered from their great misunderstanding, and all they wish is to know the composition of whatever is within their reach, and discover the general rules whereby everything has been made. Beccher and Stahl think for the rest.

Physicists and alchemists are now at one. Boyle is satisfied that some solid bodies in certain circumstances throw off artificial airs, resembling the common atmosphere in elasticity and attenuation, but differing from it he cannot tell how. German miners are harassed by suffocations of choke-damp, and explosions of fire-damp: Van Helmont cannot make out the nature of the destroying angels, and calls them gases; ghosts; invisible genii of evil. Young Black of Edinburgh ponders over an old wonder at the feet of Cullen, discovers that limestone, when burnt in the kilns, gives away a kind of air which cannot be breathed, and names it 'fixed air,' as if it were imprisoned in the rock, and the furnace set it free. The restless Priestley invents a simple way of gathering and

handling aërial bodies, and finds out nine kinds of gas in a few busy years. Scheele, too, has been conquering in Sweden with his phials and bladders, and has added two or three more to the number. All Europe follows these skilful leaders ; Rutherford, Cavendish, LAVOISIER, Davy, and the host : until everybody knows that there are as many forms of air, as of water and earth. To crown all, Faraday, with Thilorier of Paris as his assistant, is now proving that the gases may be changed by cold and pressure into liquids, and these liquids into solid ices. You have seen the bubbles, which sparkle in the creaming champagne and flit away, fall from the potent hand of the experimenter in flakes of frost-bound snow. Heat a solid metal, and it shall swell out and out, till it fall down liquid : heat the molten substance higher if you can, and it shall be resolved away into thin air. Gases, liquids, and solids are all the same, and the terms only relative. Air is not the spirit of life, but a physical reality ; and life is a far other thing than air. How full of inference is the history of these two simple truths in the world, if design be big with proof !

Let us now address ourselves to the special question to which this glimpse is meant to be introductory. What shall take place when two or more kinds of air are brought together ? Shall the heavier subside, and the lighter ascend, like oil floating on water ? The analogy of gases to liquids in this respect was tacitly assumed a good many years ; but the inference was false, for the matter is reversed in the instance of aërial substances. It was Dalton who saw, from the vantage ground of his great atomic theory, that it is otherwise ; and, with the inexorable practicality of a true chemist, he put his speculative conclusion to the test of successful trial. A vessel filled half with hydrogen, the lightest

of airs, and half with carbonic acid, one of the heaviest, will not be permanently occupied above by the lighter, and below by the heavier form, but will very soon contain both carbonic acid and hydrogen in every appreciable point of its capacity. Moreover, such mutual infusion will proceed through long tubes of small bore, and even through the pores of stucco and of animal membrane. Suppose there were a jar of fixed air in one chamber, a second of the same size full of inflammable gas in another, and the two connected by a long-enough thermometer tube ; the latter would insinuate itself away through into the vessel originally containing only fixed air, and the reverse, till there would at length be an equable mixture of the two in both. Two kinds of air cannot be in contact without melting away into each other, at a rate proportioned to their own densities, and the extent of surface at which they touch. Each of us is continually inhaling the sustaining principle of the air, and expiring the poisonous carbonic acid ; but, while we are breathing in security, the fixed air which we discharge silently soaks away by every crevice, and for each proportion that is thus imbibed by the body of the atmosphere without, a ratio of pure air finds its noiseless way within. The city defiles the breath of heaven by the natural functions of its teeming population, sets corruption free from the churning sewers of all its common filth, despoils the air by every fire and furnace within its compass, and breathes out the deadliest vapours from a thousand factories. Well, it is in virtue of the same slow but ceaseless interchange, that it is not speedily enveloped and stifled by its own noxious exhalations. The whole atmosphere is made up of three simpler kinds of air, nitrogen, which is harmless at the worst, oxygen, which is indispensable to life, and carbonic acid, which is rank poison, unless it be

very diluted; and the last is the heaviest: so that, but for this perfect mechanism of the aerial form, which makes them dissolve each other irresistibly, like snow upon the waters, the face of this beauteous globe had been still swathed in the robes of unending sleep: and Time had never awaked. The odour of springing flowers, and the stench of decay; the wholesome expirations of the grove, and the sulphureous belching of the volcano; the balmy zephyrs of the Spicy isles, and the noisome breath of the Pontine marsh, flow quietly out into the charitable atmosphere, and all baleful emanations are so diluted as to become for ever innocent, while every pleasant influence is shed abroad to sweeten the air, and swell the common good.

Then what an effect this diffusion is! There is no limit to the extensive expansion of a single inch of any gas which may be formed or liberated in the air; but a part of what is here to-day may be on the other side the world to-morrow. This is no vulgar exaggeration: for if no chemical attraction of sea or land arrests its flight, such is indeed its destiny. Consider it a little; and trace a lowly incident which happens every summer day. A bubble rises from the bottom of a solitary pool, basking in the sun among the hills: clothed about with a slender film of rainbow hue, the bonnie bell floats like a thing of light over the mantling ripple of its little sea, till the tiny craft is broken on the flower-bud of a water-lily; and away fly its crew of dancing atoms hither, thither, and everywhither.

'A timid breath at first, a transient touch:  
How soon it swells from little into much!'

What a wondrous combination of means and ends!  
how remote the instrumentality employed from the

effects produced ; and how worthy of a God ! Suppose, then, a million instances like this ; recall to mind the curious cases you have read in Paley and the Bridge-waters ; find many more in the records of science, for every page is full of them ; search out the undiscovered multitudes of similar examples in the open book of nature, which is a written strain of the loftiest music from beginning to end : and you have the data which the natural theologians endeavour to generalise. The survey of these crowding facts, like that of every other class of observations, suggests the inexhaustible inquiry of research, How are they to be understood ? What is their meaning ? Where is the theory ? The method of inquisition is the same here as elsewhere : Is there any similar class of facts of which we *know* the explanation ? Yes, there is one. In the works of human art, the mechanism of a watch, the construction of a steam-engine ; in every product of art, there are adaptations of one result to another completely resembling those which are found in the world which art attempts to imitate and control. In truth, all art consists in the institution of such mutual relations, and such production of effects by fitly chosen means. Now, the explanation of this set of facts is ready beforehand—Art is the product of a designing mind, and the designer is man. Accordingly, the substance of the Paleyan argument is this : The facts of adaptation discovered in nature are radically like the facts of adaptation instituted in art, and the inference is that they resemble them in origin as well as in resulting character—Nature is the product of a designing mind, and the designer is God. This is the argument of design, and it is essentially cumulative in its power, for the greater the number, and more striking the kind, of evidences of design that can be gathered

around it, the stronger does it appear to become. I have some strictures to make upon it, with the sincere hope of convincing you that, without a previous or simultaneous act of faith or intuitive belief, conscious or unconscious, it is wholly inadequate to the purposes for which it was constructed.

The first is this. If there be any genuine analogy between man, the designer of the works of art, and the inferred designer of the works of nature, it must be complete and extensible in the inference to all the essential characteristics of the known designer, man. How, then, does man design? By reducing discovered truth to his own uses, and making combinations of natural forms and qualities: He knows the expansive force of steam, as well as the law of latent heat, and makes a steam-engine: He creates nothing. So that the Deity, inferred from evidences of design, does, for all that the argument of analogy makes out, discover truth, apply it to his own uses, and make combinations of forms and qualities: He knows the repulsive force of matter, as well as the law of gravitation, and makes a solar system: He creates nothing.

This is Hume's analysis, though otherwise expressed, and very differently intentioned; and its force is irresistible. Hume is the best analyst, as a mere analyst, that Britain has been able to produce. A sincere and not uncharitable man, he detested the plausible, and never rested till he stripped it bare, and hooted it out of his presence. If he had believed in God by faith, I had only needed to reiterate his voice: as it is, you see how searching and indisputable his analysis is, so far as it extends.

All that the boasted argument *a posteriori*, as it is called, for the existence of a God even tends to establish

is the existence of a designer, not that that designer is the Supreme, whom science 'falsely so called' is thus ambitious of demonstrating like any other theorem. I find a watch on a solitary moor, examine its parts and their relationships, and infer a designer; but I go farther: I know that watchmakers construct similar combinations of mechanical power, and infer a watchmaker. Again, I am born into a world, full of peerless contrivance and stupendous mechanism; I discover that it is only a little part of the system of the glorious sun, and that, in its turn, of the vast looming firmament in which it burns a bright point, which again is only one complicated particle in an indefinite universe of firmaments on firmaments, growing ever on and on athwart the boundless abyss of immensity throughout the year of eternity; and, finding power and goodness everywhere, only goodness and power, I may infer a designer, if that will satisfy my heart; but I cannot take another step: I never beheld or heard of a universe-maker, and I dare not infer God. I might, indeed, surmise that this designer may in reality be that Jehovah, who is represented in the Bible of the Hebrews, even in the Koran of Mahomet, and above all in the Gospel of Christ, as the Creator and Preserver of all things, Himself being the only absolute and underived Being: but that is all, and it is not discovery; it is not proof: it is only one conjecture based upon another.

Once more: grant the natural theologian leave to pass from the conception of a mere maker to that of a true Creator. The creative attribute is not human, indeed, but is it therefore Divine? Brutes are incapable of reason; it is man's prerogative, but man is not therefore Divine in relation to the irrational creation. So that, for all that design can prove, in combination even with



the granted conception of creative power, there may be more creators than one. But allow that the inferred designer really spoke the worlds into existence, and He alone. Still that creative designer may not be God after all ; for Divinity, if proved at all, must be proved to be almighty in power, inexhaustible in wisdom, and boundless in love ; but the universe cannot be proved to be anywise infinite in the literal sense of infinitude ; it is only indefinitely vast, its magnitude compared with true immensity being a trifle for all our telescopes can disclose, and the attributes of its inferred creator may be less than infinite in kind and degree. Whatever is less than infinitude is infinitely less ; and whatever is infinitely less than anything is nothing. THIS IS NOT GOD.

Are evidences of goodness, wisdom, and power of no worth then, and their manifestations only an unmeaning pageantry ? Is it to no purpose that we see ‘ all things with each other blending ?—

‘ All on each in turn depending :  
 Heavenly ministers descending,  
 And again to Heaven uptending :  
 Floating, mingling, interweaving ;  
 Rising, sinking, and receiving  
 Each from each, while each is giving  
 On to each, and each relieving  
 Each, the pails of gold, the living  
 Current through the air is heaving :  
 Breathing blessings, see them bending,  
 Balanced Worlds from change defending,  
 While everywhere diffused is harmony unending.’ \*

Has this mazy universe of melody no significance beyond its own unfathomable beauty ? Heaven forbid ! Once know God otherwise than by discovery ; once

\* The FAUST ; translated by Dr. Anster.

believe his Being upon the same foundation as you believe the existence of the world without, your own personality, and the truth of self-evident propositions, all of which are incapable alike of proof and refutation : Once apprehend Him as the Incomprehensible One, in whom you live, move, and have your being ; and then the world, and all the worlds, are the sublimest commentary and illustration of His transcending attributes, being in truth His uttered word, still vibrating under the concave of immensity ; and the science of final causes becomes the noblest of man's terrestrial pursuits.

This is the method of the Book of Job and the Psalms of David, in both of which the Divine Majesty is tacitly understood as being of course the Jehovah, or the one independent reality, and His attributes are only illuminated by the contemplation of His handiworks. 'Praise ye the Lord from the heavens. Praise ye Him, sun and moon : praise Him, all ye stars of light. Praise Him, ye heavens of heavens, and ye waters above the heavens. Let them praise the name of the Lord : for He commanded, and they were created.'

Cicero followed the same rational plan in his treatise on the *Nature of the Gods* ; only he veiled the conception of the one living and true God under the popular form of his time and country, which represented Divinity as multiform. To come down at once to our own time, so did Ray and Derham in some degree. In reality, this is the history of every man's process of thought, with whom the argument *a posteriori* has seemed to himself to have been potential. Not the argument of design, but the argument of design together with unconscious faith in Godhood, has taught men in all ages to behold the Creator in His works. In fine, the same must be said of the natural theologians themselves. They

have failed to analyse their own process of conviction, for one thing ; they have been unable to see through their false argument, considered as a mere analytical argument, for another ; and then they have always taken the existence of the world without for granted, while they have tried to prove the Being of God, forsooth, although the two propositions are alike insusceptible both of faithless demonstration and sincere denial.

The first writer of note, who stated the argument of design as a formal proof was the Dutch mathematician Nieuentytt, in whose *Religious Philosopher* is to be found the original of that classical analogy of a watch, which was afterwards expounded by Howe, and then illustrated and enforced with so much perspicacity and elegance by Doctor Paley. The last was the first to urge it with such effect as to secure it a standing in the world. His *Natural Theology* is read by everybody, and is a text-book at the Universities. It has gone through many editions, even cheap ones for the people, and is a standard work. It has been lately presented anew under the united auspices of Lord Brougham and Sir Charles Bell. Lastly, the late Earl of Bridgewater has bequeathed the world eight well-paid treatises, all emulous of demonstrating HIM 'who is past finding out.' I would not drive counter to such high authorities, if I were not convinced that the cause of Christianity has suffered from these attempts to afford it external aid. Their direct tendency is to rob the religion of faith of its essential character : and this of 'design' encourages those who reject our most holy faith in the implied conclusion that either God must be to be found in nature by research, or not exist at all. Hence come insincere atheism, idolatrous scientific theism, and worthless half-belief in God. These are my motives and defence.

In conclusion : It may strike you that all this is at variance with the strain of invective pursued by Saint Paul in his letter to the young Roman church. ' For the invisible things of Him from the creation of the world are clearly seen, being understood by the things that are made, His eternal power and Godhead ; so that they are without excuse : because that, when they knew God, they glorified Him not as God, neither were thankful ; but changed the glory of the uncorruptible God into an image made like to corruptible man.' Here, however, the Apostle blames the insincere idolaters, not for disbelieving in the being of God, but for not glorifying Him aright, know Him though they did, and for ' holding the truth in unrighteousness.' Our common faith in conscience told them that GOD WAS, else why were they idolaters ? Analysis would have told them much about His ' eternal power and Godhead,' if they had only looked from the immovable rock of their faith with the eye of common sense upon the ' things that are made.' Faith and analysis have to work together on this momentous theme as on every other ; the former to give assurance of divinity, and the latter to show what Godhead cannot be, and even, in some little degree, what Jehovah must at least be. All idolatry, from the rudest worship of impersonated physical powers among our Saxon forefathers to the Christianised anthropomorphism (or way of thinking about Deity as a mere somewhat infinite human being) and the scientific theism of the present day, is the product of a lifeless faith in Godhood, and an inadequate analysis of His works. This is what is inveighed against by the fidian analyst, Saint Paul. Nay ! so far from being inconsistent with the Scripture, the sole aim of this sermon is to inculcate the inspired declaration of the gifted

Apostle to the nations, that IT IS THROUGH FAITH WE UNDERSTAND THAT THE WORLDS WERE FRAMED BY GOD. David Hume is right, but so is Saint Paul: and the Pauline, or rather the Divine truth is incalculably the greater, containing the other, together with as much more as the way of God transcends the thought of man. That truth we have glanced at already, and will study some future day; suffice it at present, that if you blame me for having laboured to destroy an illusion you may have fondly cherished, I can only plead that I have always looked upon the face of universal nature with a lover's eye, but never gazed with half so true emotion until I learned to look in faith.

That THE WORLDS WERE FRAMED BY GOD is a surpassing mystery. A mystery, and therein surpassing; known to be an object of belief by the fullest assurance of faith, and attested by the broad signature of the sciences, though it needed no other than the King of Heaven and earth's; but infinitely and for ever beyond created comprehension. The worlds—what are they, singing there in mystic choir, in the bosom of that holy sky on which words, the 'winged wheels' of thought, are far too feeble to discourse? What have they been made of, and how, and when, and where? Shall they last for aye, floating in the unimaginable ether of immensity, on the noiseless surge of which they were launched in the beginning? Or are they, in some billion of cycles, say thousands of years, perhaps a few short centuries, or another month from to-day, or even one fleeting hour from this last look upon their solemn splendour; are they to pass away at the silent and unutterable hest of the eternal King of Glory? And the King of Glory—who is this?—Ah! they have toyed too lightly with the

Creative Attribute, who have thought to climb up to its awful sanctuary, where it dwelleth evermore in the omnific word of Godhood, by piling stone upon stone in endless erection of a faithless science of final causation and a Great First Cause. Why, Jehovah is not the infinite source, but the source of the infinite source—not the first cause, but the cause of the first cause of all things; and even that in an altogether metaphorical mode. In fine, raised up on a basis of unconscious scepticism, this kind of natural theology is a seemingly superstructure; but it hangs on the air, wavers uncertainly in every wind of doctrine, and is ready to vanish at the first sound of a bolder infidelity, leaving no trace behind. But the same phantasmagorial temple of design, with its magnificent proportions, shapely columns, rare devices, and choicest ornaments, becomes a grand reality the instant that man, as its anointed priest, proclaims through the resounding aisles that

FAITH, ONLY FAITH, IS THE EVIDENCE OF THINGS  
UNSEEN.

## GEORGE HERBERT.

(M'PHAIL'S JOURNAL.—No. xxxiv.)

EVERY serious and cultivated mind has observed and lamented the paucity and the poverty of the sacred poems, which are to be found in British literature. The furnishing of such desirable and necessary food for the soul seems to have been the peculiar and distinguishing function of the old Hebrew bards. In this respect, among others, the Jews have certainly been the chosen people of God. It is remarkable that their magnificent literature seems to have been productive of this species of poetry alone ; while, with the exception of the Orphic hymns, neither the Greek nor the Latin muse has even truly endeavoured anything in it, on the one hand ; nor, on the other, has the inspiration of the modern world, with all its nations, effected any adequate setting forth of the Godward aspirations of the race in religious poems. Calderon and Dante, Milton and Shakspeare, to name no smaller fames, have indeed exhibited the beautiful in imperishable forms, visibly and deeply penetrated by the ideas and the sentiments of Christianity ; Christianity, however, modified by the nations and the epochs to which the poets belonged. But no mighty bard has shown forth the holy suffused with the beautiful, after the manner of the Jewish seers of the Testaments, Old and New. Per-

haps we should not look for any second avatar of that sort, any more than for a repetition of the Greek life ; once done, the thing may have been done for ever ; and it must be owned, with boundless gratitude and wonder, that the peculiar inspiration of Moses and Miriam, David and Solomon, Isaiah and Ezekiel, Mary and Elizabeth, was drawn from fountains so deep and unfathomed that their divine canticles sing the spiritual life of all nations, ages, and degrees, with the most perfect and satisfying fulness. In truth, every new attempt, in the direction of which we speak, has invariably fallen into the fascinating track of the chariot-wheels of the old : and modern sacred poetry seems incapable of becoming more than a feeble echo of the voice of God in the ancient Hebrew singers. As an American critic, of whom we shall presently make honourable mention, observes of all our fine arts except music, 'the new efforts are but bysprouts from the root of the old stem.' Yet a fresh religious poetry is an undying want of the world. The enthusiasm with which Young, Watts, Cowper, James Montgomery, and Pollok were successively received, and are still entertained by pious readers, is a standing sign of the fact. Now it has long appeared to us that George Herbert immeasurably surpasses all these honourable men, not only in that sacred fire which is the indispensable prerequisite of such poetry, but also in true poetic genius. And it is because his fervid and beautiful productions are too little honoured and appreciated, that we hasten to say a few words about him and them ; we do so in the confident expectation of the hearty thanks of many of our readers, and that even of such of them as may rest content with the single passages we shall adduce ; but still more of such as may be induced, by our example, to put the *Temple* among their household and favourite books.



Let us begin with the man himself, the holy Mr. George Herbert, as Isaac Walton loved to call him. He was a scion of an old and noble stock, and was the fifth of seven sons ; his father was Richard Herbert of Blakehall, the great-grandson of the famous Sir Richard of Colebrooke, ' who was the youngest brother of that memorable William Herbert, Earl of Pembroke, that lived in the reign of our King Edward iv.' But his father died when he was only four years old, so that he was emphatically the son of his mother. She was a notable woman, the child of one Sir Richard Newport ; the dear friend, and sometimes the inspirer, of Dr. Donne ; and subsequently Lady Danvers, by a second marriage. His elder brother became the celebrated Lord Herbert of Cherbury, a somewhat sceptical, yet an essentially spiritual-minded author ; an ambassador and a courtier, of whom Margaret Fuller remarks that he was a very noble illustration of the man of the world, living in the habitual recognition of the spiritual laws :—the noble brother of a nobler. Two brothers fell in the wars of the Low Countries ; another died in his college at Oxford ; a fourth was a valiant sea-captain ; and Henry, the sixth son, became King James's Master of the Revels.

George himself was sent to Cambridge early ; took his degrees and his fellowship ; and was, while yet young, appointed orator to the University, ' the finest place in the university,' he says in a letter to his future father-in-law, ' though not the gainfullest ; yet that will be about thirty pounds per annum, but the commodiousness is beyond the revenue, for the orator writes all the university letters, makes all the orations, be it to king, prince, or whatever comes to the university, . . . and such like gaynesses, which will please a young man well.' Nor did he not thrive in this brilliant position, for it was in his capacity

of orator that he drew the notice of King James upon him, and that of many renowned and noble personages. His letters and orations, as preserved in the Cambridge books, are written in the most elegant, witty, and withal courtly Latin. He became a courtier in fact; hoped, like other orators, to be made a secretary of state; and cherished many fine ambitions for a time. Not only Donne, but also Lord Bacon, the chancellor, made him their patron, in a manner, by dedicating each a work to him. In the University he was almost as noticeable for the elegance of his dress, and a certain aristocratic reserve, as for his sweet and pious spirit, which seemed to have been born in him from his most worthy mother. Altogether it is not easy to conceive a more smiling worldly future than shone on George Herbert during his entry into the fulness of manhood. But the spell had long been on him; spite of himself and the world, and favouring his mother's fondest wishes for him, he burned with the zeal of the house of God; and at thirty-three he renounced external life, and became the most humble and holy of English country parsons. How unaffectedly he refers to this transition in a passing stanza of his manifold poem!

‘Whereas my birth and spirit rather took  
The way that takes the town,  
Thou didst betray me to a lingering book,  
And wrap me in a gown.’

Having taken deacon's orders at this time, he was made prebendary of Layton Ecclesia, in the diocese of Lincoln. Finding the church in a state of almost complete dilapidation, his first task was to get it rebuilt, a thing he achieved with the aid of his noble and wealthy relatives and friends; and old Walton assures us that ‘for beauty and decency, it is (now) the most remarkable parish-

church that the nation affords ;' moreover, it is satisfactory to be informed that 'he lived to see it wainscotted, as to be exceeded by none.' But more truly satisfactory still is it to find that, when reminded of it on his death-bed as of a good work to take to heaven with him, he answered, 'It is a good work, if it was sprinkled with the blood of Christ.'

In his thirty-fourth year, he was fiercely threatened, and even set on, by something like consumption ; being 'of a stature inclining towards tallness ; his body was very straight ; and so far from being encumbered with too much flesh, he was lean to an extremity.' He rallied, however, and seems to have been in his thirty-fifth year when he married Jane, the favourite child of one Danvers of Rainton, in Wilts. To judge from Walton's quaint narrative of the circumstances, he seems to have realised his own ideal conception of the country parson's marriage, as recorded in his prose work called the *Priest of the Temple*. After depreciating marriage in a priest like any Romanist, he says, 'If he be married, the choice of his wife was made rather by his ear, than by his eye ; his judgment, not his affection, found out a wife fit for him.' Accordingly, after they 'had wooed so like princes, as to have select proxies,' Jane Danvers and he became true wife and husband, for better, for worse. She seems to have been a loving and obedient wife, and little wonder, for not only was he 'a poet, the prince of men,' but 'his aspect was cheerful, and his speech and motions did both declare him a gentleman ; for they were all so meek and obliging, that they purchased love and obedience from all that knew him.' She survived him many years, and, having brought him no children, afterwards married one Sir Robert Cook, living longer than him too ; surviving Herbert some six-and-twenty

years, 'all which time she took a pleasure in mentioning and commending the excellencies of Mr. George Herbert.'

It was now that he more completely and irrevocably assumed the pastoral character, having been presented by the king, at the instance of the Earl of Pembroke, to the Rectory of Bemerton, about a mile from Salisbury, some three months after his marriage. It was not till after a final struggle, however, not with civil ambition, but with his inward sense of unworthiness, that he entered into priest's orders, and was inducted into the parsonage of Bemerton. It was not till after Dr. Laud, then the bishop of London, and subsequently the historical archbishop of Canterbury, did 'so convince Mr. Herbert that the refusal of it was a sin, that a tailor was sent for to come speedily from Salisbury to Wilton, to take measure, and make him canonical clothes against next day: which the tailor did.' It is a fine spectacle for the imagination to see the graceful, elegant, accomplished, witty, learned, eloquent, courtly, and high-born orator of Cambridge University, turning meekly down one of England's green lanes, and stepping over the threshold of a country parsonage, of which it is said that it was 'more pleasant than healthful.' Nor was it suffered by this gentle and laborious spirit to become a rural bower for learned or poetic leisure. No sooner had he taken up his abode in this humble and industrious home, than he painfully elaborated his ideal-real of the country parson in thirty-seven weighty chapters, afterwards known as *A Priest to the Temple*. Carlyle writes with generous fire about poor Irving's determination, on entering the metropolis, veritably and once for all to be a minister of God's gospel, and not to seem it only, like the almost infinite majority of nominal priests.

But we are profoundly impressed with the conviction, that never has that sacred resolution been more deeply felt, nor more fully acted out, than by George Herbert ; no, not since the peculiar days of prophets and apostles. It is the common testimony of contemporaries that he was his own country parson, as entirely as it is possible for mortal to realise an ideal so exalted, so glowing, so severe. The *Priest to the Temple* ought to be in the hands and in the heart of every young minister in Scotland as well as in England ; for it is a genuine classic. No Scottish clergyman will agree with every particular it contains ; nor do we. Its severity borders on the austere. His notions concerning the marriage of ministers, his preference of celibacy for them unless marriage be necessary for some reason or other, his carefulness about fasts and meats, his tendency to formulism (not formality) in almost every direction, are all rather extreme. We would venture to say he overvalues the outward act of charity, the good deed, were it not impossible to overvalue Christian beneficence in those sad days of suffering and sorrow among the many. On the whole, however, it is clear that Herbert was a genuine Anglican, setting his reverted eye with peculiar love upon the patristic Church, abominating and cursing the errors of Romanism, under-estimating the Reformation, loving and inculcating the plentiful use of outward symbols or ceremonies for the expression of inward worship, and enamoured of charity practised within bounds. But if he was a formulist, he was no formalist, but as sincere a heart as ever bled under the sense of sin. In truth it is not easy to say what precise amount of symbolism or formulism is the best ; we cannot do without some, we must pray either standing or kneeling ; we cannot pray sitting with open eyes ; and certainly, if the Anglican

party in the Church of England is prone to one extreme, the Kirk of Scotland has long been an exemplar of the other. Deducting these things, however, there is not, and there could not be, a better manual for our own parochial clergy, than this Pharos of that richly-laden, toil-worn, and yearning man of God, George Herbert.

Our poet was not permitted to illustrate his priestly ideal very long, alas ! for he died towards the close of his thirty-ninth year ; born in April 1593, he fell asleep in March 1632 ; and it is enough to say, he died as became so noble, gifted, and gracious a man. It was within three weeks of his death that he gave the manuscript of the *Temple*, his great work, into the hands of a friend, saying, ' Sir, I pray deliver this little book to my dear brother Ferrar, and tell him he shall find in it a picture of the many spiritual conflicts that have passed betwixt God and my soul, before I could subject mine to the will of Jesus, my Master—in whose service I have now found perfect freedom : desire him to read it, and then, if he can think it may turn to the advantage of any dejected poor soul, let it be made public ; if not, let him burn it ; for I and it are less than the least of God's mercies.' It is this singular combination of poems that we wish to introduce to the affectionate admiration of our more lyrical readers.

Coleridge has recorded his judgment that Herbert ' is a true poet, but a poet *sui generis*, the merits of whose poems will never be felt without a sympathy with the mind and character of the man.' And it is for that reason that we have taken a glance at his circumstances and mode of being, before drawing near his sacred erection. The same great critic is likewise of opinion that the competent reader of Herbert must be a Christian, devout and devotional, as well as the subject of poetical

sensibility and culture ; and insists that even these will not suffice. To quote his very words, ' He must be an affectionate and dutiful child of the Church, and from habit, conviction, and a constitutional predisposition to ceremoniousness, in piety as in manners, find her forms and ordinances aids to religion, not sources of formality ; for religion is the element in which he lives, and the region in which he moves.' This is very true if the object desired, or desirable, by the reader, be such total absorption in the poet as is certainly the highest pleasure, and the most profitable experience, in the study of poetry or any other sovereign art. Yet poetic merit is shed so profusely over the pages of this peculiar work that the most unaccompanied poetic taste is sure to find far more delight than weariness and offence. On the other hand, the well-tuned Christian mind, Episcopalian, Presbyterian, or Morellian, we had almost said Roman or Psilanthropist, will discover such an excess of pure gold, that what may look like dross to this reader or to that, will hardly be observed, or only kindly smiled at in passing by. The fact is, that Herbert's poem is more catholic than Herbert's creed, and incomparably more so than his doctrine of church services. As surely as a man is a poet, so surely is he humane, overgrowing every pale whatever, and possessed of blessings for all men. And Herbert the man had often been wrapt in the unconsuming flame of inspiration, as well as Herbert the priest :

'The consecration and the poet's dream,  
The light that never was on sea or shore !'

The *Temple* itself may be viewed as the fair ideal of English churches, built up with words. It is not Canterbury, nor York, nor Westminster, nor any one of the thousand parish churches of England ; but it is the

essence of all and each of these. It is, moreover, that inalienably English conception of a church transformed by the creative fancy of a free poet, into a poem of rare architectural beauty. In approaching this song-temple, one must by no means think of the Scottish Kirk on one side, any more than of the Roman Catholic Cathedral on the other. The latter

‘Hath kissed so long her painted shrines,  
That e’en her face with kissing shines,  
For her reward :’

And as for the former—

‘She in the valley is so shy  
Of dressing, that her hair doth lie  
About her ears.’

Our poem is simply a numerous and vocal symbol of that fine and matronly intermediate between those extremes, an English Church :—

‘A fine aspect in fit array,  
Neither too mean, nor yet too gay,  
Shows who is best.  
Outlandish looks may not compare,  
For all they either painted are,  
Or else undrest.’

And first of all there is a modest dedication over the gateway :—

‘Lord, my first-fruits present themselves to thee ;  
Yet not mine neither ; for from thee they came,  
And must return. Accept of them and me,  
And make us strive, who shall sing best thy name.  
Turn their eyes hither, who shall make a gain :  
Theirs, who shall hurt themselves or me, refrain.’

Then comes the simple, but substantial, and even stately church-porch. This consists of seven-and-seventy stanzas, full of clear sense concerning the common conduct of life, chastened worldly wisdom, and pure Chris-



tian morality ; addressed to the Laertes, or young son of the Church :—

‘Thou, whose sweet youth and early hopes enhance  
Thy rate and price, and mark thee for a treasure.’

The neophyte is cordially, fervently, but above all sensibly, warned against lust, wine, and, especially, boastfulness of sensuality. It is roundly and grandly said of the boaster,—

‘He makes flat war with God, and doth defy  
With his poor clods of earth the spacious sky.’

Swearing, leasing, and idleness are next rebuked with as much pungency as wit. The very soldier is adjured to use a noble sedulity :—

‘Chase brave employments with a naked sword,  
Throughout the world. Fool not ; for all may have,  
If they dare try, a glorious life, or grave.’

Constancy, frugality, regularity of living, love of solitude, and thrift are all enforced with singular judgment. Hints about dress, play, conversation, quarrel, laughter, wit, the great, friendship, and general behaviour, are spun into as many stanzas. At length there is more seriously inculcated the duty of respect for Sundays, the Church, the Minister, and the Institution of Prayer ; all done with as much point as gravity ; and with a most gallant ending, which will always please the wisest best :—

‘In brief, acquit thee bravely ; play the man.  
Look not on pleasures as they come, but go.  
Defer not the least virtue ; life’s poor span  
Make not an ell, by trifling in thy woe.  
If thou do ill, the joy fades, not the pains ;  
If well, the pain doth fade, the joy remains.’

That which strikes one most forcibly in all these preliminary stanzas is the practical sense that pervades

them. One had thought Herbert a meek and innocent Church-mystic, and here one finds him a man of life and counsel. The saint approves himself a gentleman ; the scholar, a man of the world ; the minister, a citizen. The reader is reminded of Bacon's minor essays ; in some of the passages there is, here and there, a touch of pawky Benjamin Franklin ; but such is the thoroughbred air of the whole Porch, that the image of old Polonius bestowing wise and elegant advices on his son, is more frequently suggested than either. These fits of easy association last only a moment, now and then, however : for the most part, the individuality of George Herbert is not to be lost sight of, for the fragrant breath of the Church is in the Porch. Besides, the style of the expression, as well as the thought, is remarkably idiosyncratic ; it is quite as much so in this profane portion of the piece, as it is within the Temple. It is full of felicities :—

‘ Do all things like a man, not sneakingly :  
Think the king sees thee still, *for his King does.*

Slight those who say amidst their sickly healths,  
Thou livest by rule. What doth not so but man ?  
Houses are built by rule, and commonwealths.  
*Entice the trusty sun, if that you can,*  
*From his ecliptic line ; beckon the sky.*  
Who lives by rule then, keeps good company.

*Salute thyself :* see what thy soul doth wear.

*Command thyself in chief. He life's war knows,*  
*Whom all his passions follow as he goes.*

Laugh not too much : the witty man laughs least :  
*For wit is news only to ignorance.*

All things are big with jest, nothing that's plain  
But may be witty, if thou hast the vein.

' Envy not greatness ; for thou makest thereby  
Thyself the worse, and so the distance greater.

Thy friend put in thy bosom, wear his eyes  
Still in thy heart, *that he may see what's there*.  
If cause require, thou art his sacrifice ;  
Thy drops of blood must pay down all his fear :  
But love is lost ; the way of friendship's gone ;  
Though David had his Jonathan, Christ his John.

Let thy mind still be bent ; still plotting where  
And when and how the business may be done.

Active and stirring spirits *live* alone :  
Write on the others, Here *lies* such a one.

Scorn no man's love, though of a mean degree ;  
*Love is a present for a mighty king*.

Affect in things about thee cleanliness,  
That all may gladly board thee, *as a flower*.

Though private prayer be a brave design,  
Yet public hath more promises, more love :  
And love's a weight to hearts, to eyes a sign.  
We all are but cold suitors ; let us move  
Where it is warmest. Leave thy six or seven ;  
Pray with the most : *for where most pray, is heaven*.

Kneeling ne'er spoiled silk stocking : quit thy state.  
All equal are within the church's gate.'

We would hasten into the sacred and equalising enclosure, but that we wish to point out a certain hidden significance in the construction of the Porch before doing so. In this the prelude of the piece, there is nothing set forth but manners and morality. Nothing truly sacred, nothing that is spiritual is introduced. The inner life of the church member is hardly hinted at ; that life of Christ which is hid with God is religiously reserved for the interior of the Temple. With how much care and

touching simplicity is morality, pure and undefiled, kept separate and differentiated from Christianity, by this poetic contrivance! Ethics, and even christianised ethics, which form 'the be-all and the end-all' here of certain ancient and modern codes, is the mere *Perirhanterium* of the religion of Jesus. Beyond the endeavours and attainments of him 'whose life is in the right,' there is a whole universe of higher, deeper, subtler, tenderer, and more glorious experiences for the Christian. Morality is no part of Christianity proper; it is its best and likeliest preparative of the way, or it is its first and its necessary sign: but it is not an integral part of it, any more than health is part and parcel of morality, although it is one of its delightful consequences. The Christian is and must be moral; but he is not a Christian in virtue of his morality; he is a moral being in consequence of his Christianity. As it has been forcibly expressed by Coleridge, in his comment upon James i. 27, morality is the mere outer service or ceremonial of Christianity: it bears the same proportion and relation to the moral essence itself, as the external services of the tabernacle and the temple sustained to the faith and theopathic life of Moses and the fathers. It is a mere body, capable of subsisting by itself; but also capable of becoming informed and glorified by the new spirit of Christ. Now the reader of sensibility cannot fail to perceive that all this is infolded in, or rather poetically adumbrated by, the very subject-matter and the treatment of the *Porch*, at which we have just been glancing. Nor can one very well escape the feeling by way of inference, that the author of so much plain good sense is a trustworthy guide to loftier themes. The priest has gained one's confidence on the threshold of his sacred house; and one advances full of trust in the candour of the wise young

minister, not overawed even by these solemn words from the Superliminare :—

‘ Avoid profaneness ; come not here :  
Nothing but holy, pure, and clear,  
Or that which groaneth to be so,  
May at his peril further go.’

Once within, it is truly a wonderful place for eye and ear. There is a ‘ broken altar ’ composed of the contrite heart of the poet, which every reader may appropriate with tears ; there is an elaborate altar-piece of ‘ the sacrifice ’ painted immediately behind ; thanksgivings, confessions, prayers, sighs, and aspirations murmur everywhere around ; hymns and psalms, choruses and fugues resound throughout the fane ; homilies, lessons, and sermons solemnise the intervals of orison and song ; there are carved pillars uplifting the roof, full of quaint devices, anagrams, and quips ; monumental inscriptions and statues are all about ; painted windows let in whole passages of poetry from the heaven without ; and an unknown organ never ceases to suffuse the holy place with its melodious breath, till the last anthem has been pealed forth from the sobbing depths :—

GLORY BE TO GOD, AND ON EARTH PEACE, GOOD-WILL TOWARDS MEN.

Such are the images of Herbert’s Temple remaining in our mind and heart, after living, moving, and having our being among its quaint and most beautiful recesses a long autumn day. Perhaps they may help some readers to the feeling of the poem. But since we sincerely and earnestly wish this remarkable production to be more read and appreciated than it has hitherto been, we must display some of its separated riches. It is not difficult to find them ; let us begin with a specimen of sheer strength. Referring to the agony of bloody sweat upon

Mount Olivet, what power of expression is there in this passing couplet :—

‘Sin is that press and vice, *which forceth pain  
To hunt his cruel food through every vein.*’

And here is a pure Easter-song by way of relief :—

‘I got me flowers to strew thy way ;  
I got me boughs off many a tree :  
But thou wast up by break of day,  
And broughtst thy sweets along with thee.

‘The sun arising in the east,  
Though he give light, and the east perfume ;  
If they should offer to contest  
With thy arising, they presume.

‘Can there be any day but this,  
Though many suns to shine endeavour ?  
We count three hundred, but we miss :  
*There is but one, and that one ever.*’

What could be more comprehensive, more searching, more admirably put, than these memorable stanzas on Sin ?—

‘Lord, with what care hast thou begirt us round !  
Parents first season us : then schoolmasters  
Deliver us to laws ; they send us bound  
To rules of reason, holy messengers,

‘Pulpits and Sundays, sorrow dogging sin,  
Afflictions sorted, anguish of all sizes.  
Fine nets and stratagems to catch us in,  
Bibles laid open, millions of surprises,

‘Blessings beforehand, ties of gratefulness,  
The sound of glory ringing in our ears ;  
Without, our shame ; within, our consciences ;  
Angels and grace, eternal hopes and fears.

‘Yet all these fences and their whole array,  
One cunning bosom-sin blows quite away.’

There is a tradition that, on the occasion of the birth

of Christ, there flitted over sea and land, like an awe-struck Aurora of sound, a voice that murmured, 'great Pan is dead ;' but Pan is made alive again with Christianity by the rural scholar of Bemerton in this exquisite stanza :—

' Now I am here, what thou wilt do with me  
 None of my books will show :  
 I read, and sigh, and wish I were a tree ;  
 For sure then I should grow  
 To fruit or shade : at least some bird would trust  
 Her household to me, *and I should be just.*'

But could the gentle Dryad have written down the quality of prayer in such a precious, though fantastic string of similes as we have here !—

' Prayer, the Church's banquet, Angel's age,  
 God's breath in man returning to his birth,  
 The soul in paraphrase, heart in pilgrimage,  
 The Christian plummet sounding heaven and earth ;  
 ' Engine against the Almighty, sinner's tower,  
 Reversed thunder, Christ-side-piercing spear,  
 The six days' world-transposing in an hour,  
*A kind of tune which all things hear and fear ;*  
 ' Softness, and peace, and joy, and love, and bliss,  
 Exalted manna, gladness of the best,  
 Heaven in ordinary, man well drest,  
*The milky way, the bird of Paradise.*  
 ' *Church bells beyond the stars heard, the soul's blood,*  
*The land of spices, something understood.'*

Nor would not the delicate poet, like another and more blessed Ariel, have soon enough languished to be free from rind and leaves, even though musical with nightingales and bees, if for no other purpose than to inscribe this wise and witty couplet on the fly-leaf of his study-Bible, before becoming the permanent captive of a hundred sheltering years :—

' Stars are poor books, and oftentimes do miss ;  
 This book of stars lights to eternal bliss.'

Alas, he could not have lived the oaken, or ashen, or any other vegetable life one day in peace. His ardent spirit would have burned itself to death, long before the first browning of the foliage, bringing in a premature autumn !

' O raise me then ! poor bees, that work all day,  
*Sting my delay,*  
 Who have a work, as well as they,  
 And much, much more.'

Yet never was there sweeter sympathy with Nature half-alive than our sweet-souled pastor's. Praying down grace, he remembers how it is said, 'Come let us reason together,' and he murmurs with the veritable delicacy of a child,

' The dew doth every morning fall ;  
 And shall the dew outstrip thy dove ?  
 The dew, *for which grass cannot call,*  
 Drop from above.'

Nor is there wanting that half-respectful pity for 'auld Nickie-ben,' which has been expressed with so much humour and pathos by Robert Burns :—

' We paint the devil foul, yet he  
 Hath some good in him, all agree.'

Ay, and he is a lover of the night after his own dear familiar fashion ; he says :—

' I muse, which shows more love,  
 The day or night : that is the gale, this the harbour ;  
 That is the walk, and this the arbour ;  
 Or that the garden, this the grove.'

Perhaps as good a specimen as could be shown of Herbert's peculiar vein is to be found in the apostrophe called 'The Star.' It turns on a fanciful, almost a fantastic, conceit ; but the moment you admit its legitimacy, and you can do it only by an act of poetic faith, you are ravished by the infinite ingenuity and beauty



with which the author turns it to the fair and sacred uses for which he snatched it down from the 'heaven of imagination.' Examine the subtilty, and feel the real beauty of this curious rapture:—

'Bright spark, *shot from a brighter place,*  
Where beams surround my Saviour's face,  
Canst thou be anywhere  
So well as there ?

'Yet, if thou wilt from thence depart,  
Take a bad lodging in my heart ;  
For thou canst make a debtor,  
And make it better.

'First with thy firework burn to dust  
Folly, and worse than folly, lust ;  
Then with thy light refine,  
And make it shine.

'So disengaged from sin and sickness,  
Touch it with thy celestial quickness,  
*That it may hang and move*  
*After thy love.*

'Then with our trinity of light,  
Motion, and heat, let's take our flight  
Unto the place where thou  
Before didst bow.

'Get me a standing there, and place  
Among the beams, which crown the face  
Of him, who died to part  
Sin and my heart.

'That so among the rest I may  
*Glitter, and curl, and wind as they :*  
*That winding is their fashion*  
*Of adoration.'*

This is the operation of the pure fancy ; and it is this sort of voluntary conceit that Herbert excels and delights in. Yet it must be owned that these turns and feats of the mind, though frequently violent and against the use

of nature, are not without their power and grandeur on occasion, apart from the beauty with which the lovely spirit of the author almost unfailingly illustrates them. How sublime a prank is this all but imaginative anagram of the name of the Virgin Mary, the letters of which are the same as those of Army :—

‘ How well her name an ARMY doth present  
In whom the LORD OF HOSTS did pitch his tent !’

There is also something of the identifying process, or passionate coadunation of imagination proper, in this more sober repetition of the Oreadic aspiration :—

‘ O that I were an orange-tree,  
That busy plant !  
Then I should ever laden be,  
And never want  
Some fruit for him that dresseth me.’

Although, however, the imagery and illustrations of Herbert's poems are almost entirely drawn from the storehouse of fancy, he was a man of true and penetrating imagination. All his most kindly sympathies ; the overwhelming passion of his piety ; his love, as universal as the sun's radiance, and as particular as its ray ; his profound insight into Nature and Man ; and his trembling sense of the essential unity of all thoughts and things, were all the outcomings of a most imaginative spirit. These constituted his genius ; his fanciful mode of handling his expositions of himself was the result of his cultivated talent. Like Donne, he had acquired the trick, the habit of working in that manner ; but in all that is within the mere manner of his works, in all that gives that mannerism its perennial worth, he was alike untaught and unlearned. Nor does he not frequently drop his manner, and say his word like a man too inspired to be capable of a style. In what style or school

can this solemn and beautiful thought be classed, unless it be the unnameable one of human nature?—

‘What hath not man sought out and found,  
But his dear God? *who yet his glorious law*  
*Embosoms in us, mellowing the ground*  
*With showers and frosts, with love and awe.*’

Then there is a wonderful statue of Man erected about the middle of the church, which the sculptor, we shall not say has hardly dared, but has scarcely been able, to deface with one wayward stroke of the heaven-taught chisel that cut it out of the pure block of thought. The wisdom, the real new insight, the revelation so to speak, expressed in this striking production, are so great that the language draws no part of the student’s attention; he only considers its mighty burden of remote truth, and wonders how it has been brought so near.

‘My God, I heard this day,  
That none doth build a stately habitation,  
But he that means to dwell therein.  
What house more stately hath there been,  
Or can be, than is Man? *to whose creation*  
*All things are in decay.*

‘Man is all symmetry,  
Full of proportions, one limb to another,  
*And all to all the world besides:*  
Each part may call the farthest, brother;  
For head with foot hath private amity,  
And both with moons and tides.

‘Nothing hath got so far,  
But Man hath caught and kept it as his prey.  
His eyes dismount the highest star:  
*He is in little all the sphere.*  
Herbs gladly cure our flesh, *because that they*  
*Find their acquaintance there.*

‘The stars have us to bed ;  
 Night draws the curtain, which the sun withdraws :  
 Music and light attend our head.  
*All things unto our flesh are kind  
 In their descent and being ; to our mind  
 In their ascent and cause.*

‘*More servants wait on man*  
*Than he'll take notice of :* in every path  
 He treads down that which doth befriend him,  
 When sickness makes him pale and wan.  
*Oh, mighty love ! Man is one world, and hath  
 Another to attend him.'*

The seer, who was competent to the expression of those interior deeps of the universe, might well squander a thousand ornaments like the following flowers on the adorning of the Temple he loved so well ; for his prolific fancy was a very cornucopia of such sweets and beauties :—

‘I made a posy, *while the day ran by ;*  
 Here will I smell my remnant out, and tie  
                     My life within this band.  
*But time did beckon to the flowers, and they  
 By noon most cunningly did steal away,  
 And withered in my hand.*

‘I often blotted what I had begun ;  
 This was not quick enough, and that was dead.  
 Nothing could seem too rich to clothe the sun ;  
*Much less those joys which trample on his head.*

‘If I but lift mine eyes, my suit is made :  
 Thou canst no more not hear, than thou canst die !

‘My thoughts must work, *but like a noiseless sphere—*  
 Harmonious peace must rock them all the day.

‘But groans are quick, and full of wings,  
 And all their motions upward be ;  
 And ever as they mount, like larks they sing :  
*The note is sad, yet music for a king.*

'He that to praise and laud thee doth refrain,  
Doth not refrain unto himself alone,  
But robs a thousand who would praise thee fain;  
And doth commit a world of sin in one.

'Rain, do not hurt my flowers; but gently spend  
Your honey drops: *press not to smell them here*;  
When they are ripe, their odour will ascend,  
*And at your lodging with their thanks appear.*

'After my heart was well,  
And clean and fair, as I one eventide  
Walked by myself abroad, I saw a large  
And spacious caldron, round about whose verge  
Was in great letters set AFFLICTION.  
*The greatness showed the owner.'*

The last of these quotations is scarcely a flower, unless it be a passion-flower, fetched from the border-land of Hades. Seen in separation from its context, it is like Dante. We heard the lines spoken the other day by an old man of sorrow, a poet, a philosopher, and a Christian; and our hearts were melted within us by the united grandeur and simplicity of the image. Yet it would have become lurid and horrible, instead of solemn and awful, in any other hand. The last words relieve the gloom, and exalt the illustration:—

*'The greatness showed the owner.'*

Here is another image which borders on the imaginative, it is so true to life:—

'But to all,  
Who think me eager, hot, and undertaking,  
But in my prosecutions slack and small;  
*As a young exhalation, newly waking,*  
*Scorns his first bed of dirt, and means the sky,*  
*But cooling by the way, grows palsy and slow,*  
*And settling to a cloud, doth live and die*  
*In that dark state of tears.'*

But we are rifing this wealthy Temple with too unsparing a hand, and we must now force ourselves to be content with one excellent thing more. It shall be a part of what the Builder calls 'A True Hymn :—

' My joy, my life, my crown !  
My heart was meaning all the day,  
Somewhat it fain would say :  
And still it runneth mutt'ring up and down  
With only this, My joy, my life, my crown !

' Yet slight not these few words ;  
If truly said, they may take part  
Among the best in art.  
The fineness which a hymn or psalm affords,  
Is, when the soul unto the lines accords.'

Such then is the sacred poetry of George Herbert, the country parson of Bemerton. It is peculiar ; it even requires a peculiar cantation to secure its due effect upon the ear ; but it is resonant with genuine music, to the sense as well as to the soul. He was, indeed, a passionate lover and practitioner of music, so it were sacred ; for all his passions seem to have been subordinated to the idea of Christianity with which he was overflowed. Apart from such overflowing, in truth, he had scarcely been a poet of any renown, for his few profane pieces have none of the indelible glow of immortality upon them. He was inspired by the Bible as its vaticinators were inspired by God. He seems to stand in a relation to these sacred penmen, like that of the Greek rhapsodists, of whom Ion is our Platonic type, to the Homeric epics ; or like that of the actor of genius, a Siddons or a Kean, to the orb of Shakspere's many-coloured song. As has already been hinted, this secondary relation to the original fountain of inspiration seems to be the condition of the modern hymnist's very existence ; and

surely no man has drunk so deeply of the old river of joy as this English priest of the seventeenth century.

Yet when under the glow of his sacred intoxication and self-abandonment, he sends out the most original coruscations of insight in other directions, as we have seen. His pages teem with the most novel conceits, and the most aboriginal images on the one hand; and, on the other, from what book or Bible did he draw those subtle and far-reaching intuitions in the above-quoted piece upon Man, to signalise only one example? Above all, perhaps, there is high and unhelped imagination in the very preconception, and in the name of the poem—*The Temple!* Now that we emerge from its rapturous shades, we cannot escape from the feeling of the unity of the arts; music and architecture, sculpture, painting, and poetry are here; at least for the present happy evening of our existence. Nor does this dissolving night not run into easy rhyme with another that melted around us long ago. At the instance of this association of identical though distant sentiments, we remember, with a feeling as vivid as the new-born joy itself, how our hearts leapt up when we were gravely told, and that by one of the most rectangular of men of science, that an ingenious person had found out such a deep and real analogy between the proper beauty of the eye and the beauty of the ear, that architecture might be literally dissolved away into music, and music literally crystallised into architecture, by the initiated hand of skill. He played off cottages, colonnades, temples; he sketched down airs, ballads, oratorios. It was a budding and melodious May morning, some nine years ago, in the spring of life; as we walked away from our venerable teacher, we said, This is a wonder which few of us can hope to un-

derstand, but we will believe it notwithstanding ; for we had not then learned the momentous fact, that what is true for the imagination is not necessarily true for the understanding or the senses. But the pure idea haunted us all day long, and filled our swarming brain with the most delightful hallucinations. The streets of the city where we were gave way, like billows, beneath our buoyant feet ; the people passed us as summer breezes pass over the abandoned strings of an Eolian ; crescents and public buildings, monuments and church-spires, all expired around us in the euthanasia of sound and numbers. We were at once beside ourselves, and nearer our very selves than we had ever been before. In the evening we went to a town in the country, where we were born ; and there the fluted face of the old familiar house melted before our eye, and hummed in our ear the hymn of childhood. Sighing for solitude and night, we walked into the fields as soon as the stars were out to give us welcome home. O how divine a thing did this new revealing of the mystery of material existence then appear to be ! Think the same of each and all of the sensible phenomena of the universe ; of the far-booming hosts of heaven, and the humming multitudes of ever-wheeling atoms ; and what an oratorio is creation ! It is a temple, stately, stupendous, and spirit-quelling ; and a spiritual song, struck at the birth of time, swelling through immensity, and capable of flowing through all eternity, unless the voluntary God of its sustaining shall withdraw the breath of life that animates the solid-seeming frame.

The constellation of the Lyre, and the birthplace reminiscences of an early life, under the roof of godly parents, combined to draw our thoughts into high Bible tracks. Yielding to the soft, and almost paternal guid-



ance of the place and of the hour, we flew aloft on the imaginative wing of faith to those argent fields of industrious peace, where the 'spirits of just men made perfect' shall 'summer high in bliss' for ever. There was David the royal singer, sitting apart upon a pleasant height before our willing eye. Bending over his harp in wonder and in love, and sweeping his prophetic fingers over the wakeful and awaiting chords, he interpreted the hieroglyphics of nature, as they rose on his view, and rolled away 'in silent magnanimity' before him; he interpreted them into the living voice of song: and the nations of heaven gave ear. 'Hark,' we whispered to the listening night, 'how he thunders out the glories of our own magnificent firmament in full diapason: a worthy overture to all that is to follow. Listen again: he comes to the system of the sun, a majestic interlude, but also big with a tenderer meaning to the sovereign lyrist himself; for what a soft, melancholy, home-toned bar is floating from about him now! It is his own dear old world, where he struggled, and fell, and rose again a thousand times and more. Notice how his eye glistens, and his hand trembles, and his voice falters and wails, while he utters in intelligible strains the other meaning of the pale reflective moon, and the cool just sky, and the heaving true-hearted sea, and the bountiful green earth; ay, and Kedar's monotonous wilderness afar, and the skipping hills of Judah, and the muttering brook of Kedron, and the holy city of Jerusalem, and the ever-fragrant Temple of Solomon his son!' But he might not tarry. There lay an outspread universe before him, and away he sped, climbing a thousand times ten thousand Milky Ways with his regal eye, and pouring forth an unending flood of music, meaning more than the ear can understand.

Alas ! we are now many years older than then, and find such rapturous apprehensions or deliriums only in the house of memory, when some voice like Herbert's approves itself a spell, and opens the chambers that are haunted by those ghosts of the past.

## DAVID SCOTT, R. S. A.

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ANOTHER potent and beautiful spirit has passed away. David Scott has completed the high-aiming curve of his brief career. The sudden-seeming decease of a man so young and vivid, a painter so aspiring and energetic, and a man of genius so characteristic, has not only overwhelmed his friends and lovers with dismay, but it has also saddened the heart of his native city. It is not to be denied that Edinburgh demeaned herself towards this, one of the noblest of her sons, with more of the severity of a stepmother than the tenderness of maternal solicitude ; but now that he has been withdrawn from her embrace for ever, she appreciates her loss. She did not understand him living, but bewails him dead.

In the course of the last fifteen or twenty years, Scott had steadily become one of the most noteworthy of native artists. Without fortune, without office, without professional success commensurate with his undisputed superiority, and living in a state of seclusion if not alienation from society, he exhibited a wonderful series of pictures from year to year; recognised, by all but the most frivolous spectators, to be the manifestations of a powerful and exalted soul. The superficial observer was frequently so much startled as to find no suitable

expression for his perplexity except in the sneer of presumptuous folly ; the technical critic was often confounded by the careless pride with which his rules were set at defiance and superseded ; the deeper judge of painting, considered as one of the forms of art, might occasionally descry some reason to question the principles of the artist's procedure : but the thoughtful were always sure of the striking and original utterance of some new insight into the nature of man, or into the resources of art. Everybody capable of forming and pronouncing such a judgment, was aware that only genius of the most personal and lofty order could have even endeavoured to give itself expression in the large majority of those singular pieces of work. Even those who may have been the most inflexibly disposed, upon well-considered æsthetical grounds, to dispute the painter's whole idea of art, both in its scope and in its materials, were also free to confess that he could be nothing less than a gifted and self-reliant poet at heart. All men felt that they stood before the works of a mind grandly endowed with 'the faculty divine,' if they were likewise of opinion that he had not completely achieved 'the accomplishment of verse.' Nor can there be any doubt, but that the mass of discerning people did invariably assign him a far higher rank in the hierarchy of intellect than to any of his competitors in the race of fame, even while they honestly refused to his intensely idiosyncratic productions an equal meed of praise and more substantial encouragement.

In fact, the large and solemn studio, in which he painted and preserved his picture-poems, had gradually become one of the most curious and significant features of Edinburgh and its School of Art ; and its master-spirit, one of the most individual of Scottish characters

belonging to the age in which we live. It was there that men of eminence in the Church, in politics and law, in science, in literature, and in life, discovered what manner of man he was ; and left him with surprise, seldom unmingled with pain, and always ennobled by admiration. It was there that intellectual strangers, of all the more elevated classes of mental character, found another 'wise man in a little city,' not without astonishment that they had scarcely heard of him before. It was there that many a tender-hearted lover of whatsoever is great and good was at once melted and uplifted by the spectacle of so much cool self-possession, such unquenchable perseverance, such intrepid independence, and such height of contemplation ; displayed in circumstances which were evidently the reverse of propitious. It was there that enamoured students of poetry, in its essence rather than in its manifold embodiment, stood with reverence by his side, and, perhaps as proudly indifferent to particulars as he sometimes was himself, penetrated by means of imaginative sympathy to the soul of truth and beauty, that stirred under the surface of all his happier efforts. It was there that congenial poets took his cold hand in theirs, and bade him God-speed, with tears threatening in their eyes. It was there also, still more than at the household hearth, that his friends descried the heart of unflaming fire, which glowed within the distant quietude of his manners. It was there, alas ! it may almost literally be said, that he died.

The sympathetic reader, who has not enjoyed the benefit of acquaintance with the works of this high-minded artist, will yet confess that the man, of whom all these things are recorded without a tittle of exaggeration, must be worthy of some enduring literary monument to his name. Such a mausoleum could not be

raised within the narrow enclosure of an Essay ; even supposing that it were, as it is not, our province and our ambition to undertake the task. In the meantime, however, it can be neither unprofitable, nor yet without its pleasures of melancholy, to trace his progress in life and art, to glance over the varied results of his unsurpassable industry, to inquire a little into his mode of being, and to extricate something like a life-like image of what he was. So peculiar and dignified a figure must not be suffered to stalk away into the night of time, without a bloodwarm portraiture being sketched by one of his contemporaries, how slight and feeble soever it may be. Such an estimate of the man, of his genius, and of his doings, will necessarily be imperfect, probably not impartial, and certainly enthusiastic, conceived and executed as it is so immediately subsequent to his decease. But the future biographer will take this circumstance into account ; and, avoiding the tear-irradiated colours of the mourner, he may find some lines and lineaments for his severer picture in these faithful particulars. In truth, it is this reference to the future that lends somewhat of importance to the present attempt : for it is the profound and long-lived conviction of not a few retired and thoughtful judges that the name of David Scott is henceforward historical, and is destined to become much more interesting to the critics of the next century than it has yet been in this. Even were their fond surmise doomed to disappointment,—a thing we do not fear,—it cannot but be good to consider the lustrous and severe Ideal, which a man of genius and virtue has been pursuing, these twenty years and more, in the very midst of us ;—until the beautiful but terrible Apparition turned round on her creator, and hunted him to an early grave.

Scott would have been forty-three if he had lived till the 10th of next October. He was born in 1806, in Parliament Close, where his father both resided and carried on an extensive business as an engraver. To judge from a grim portrait of him by his son, and from the reminiscences of some who knew him, Robert Scott seems to have been a man of energy and mark. Eminent in his profession, he was more than fifty years its leading representative in Edinburgh. Not without skill himself, he was the master of a number of successful pupils. Amongst others, both Burnet and Horsburgh were once his apprentices. He must have been a man of inquiring, fervid, and self-determining spirit ; for he left the communion of the Kirk of Scotland, and identified himself, heart and hand, with the Scotch Baptists ; and that when a little advanced in life. He did not take this decisive and important step, however, till some two years after the birth of David ; and it is curious that the son never sympathised even in boyhood with this honest movement of the father's, but retained a vigorous feeling of preference for the National Church till the very last, although he never belonged to her communion.

Our painter was the fourth child of the family, but the three older ones died within a few weeks of each other, not long after his birth. This melancholy circumstance was not improbably connected with that deepening and darkening of the religious sentiment, which was coincident with the family's going over to the Baptist community. About the same time, however, they escaped the gloom of those old purlieus of St. Giles', and removed to a house in the Meadows. It was consequently in a free and almost rural neighbourhood, that this child of fear and hope was allowed to open the eye of his mind ; for he was only two years old at the time of the change.

A younger brother, who followed the avocation of their father, died some nine years ago. A sister also fell before her time, just as she was entering into womanhood. Another brother still survives, not unknown, it is almost unnecessary to observe, both as a painter and a poet.

It is clear that, notwithstanding the longevity of the parents, the vital stamina of the family constitution must have been somewhat feeble. The sudden and simultaneous disappearance of those three children, and the premature dissolution of these two young people, sufficiently exemplify the fact. It was visible in David from the beginning. His schoolfellows remember him as a slender boy, of an elegant make, not playful but gentle, retiring, spirit-like, and peculiar. They are unanimous in saying, that the uniqueness of his character and manner was as noticeable in these early days as at any time in later life. Attending the High School, he was not without eagerness, and even mastery, in the pursuit of classical studies, although rather weakly in health. Never at any time, however, did he make very considerable proficiency in Greek and Roman literature. Neither languages nor literary forms, as such, had ever attractive enough charms for his mind to carry him through any large amount of labour in order to their attainment ; while he was possessed of no rapidity or specific facility in these directions. It was the allegories and the tautologies of the Greek mythology, and the heroic characters and situations of Greek poetry, that fascinated his imagination ; and that imagination was so reproductive that the merest hints were sufficient for his purposes. Accordingly, he did certainly attain to a genuine feeling for the ancient classics, but never to a true and intimate knowledge of them.

It is also related how he played with the Italian tongue



while yet a boy, animated by the young hope of one day reaching Rome ; for he had already conceived, and begun to nourish, the love of the great and beautiful in art. In truth, it was impossible for him to escape the perilous, though not unblessed touch of that mighty spirit. Living in a home not only overshadowed by the august verities of Christian faith, perhaps sombre with accidental peculiarities, but also regulated by an earnest man in the closest connexion with the art of painting, and literally strewn with prints and sketches, the child of sensibility could hardly avoid the destiny by which he was solicited on every side.

Not rushing profanely and without hesitation into the enchanted arena, he submissively learned the art of the engraver from his father, and became one of the assistants in the paternal establishment. That occupation, intermediate as it is between the honest laboriousness of the tradesman and the ennobling toils of the artist, is a most appropriate initiation for the future painter. When a young creature unprovided with hereditary fortune appears to put forth the buddings of a genius for painting or for sculpture, his guardians should always insist on his acquisition of the trade of the house-painter, the lithographer, the marble-cutter, the wood-carver, or else the more liberal art of the engraver, in the first instance. If the neophyte think that any of these manly callings is beneath him, it only proves that he is hopelessly beneath the glorious art to which he aspires. If he be wise he will learn much that is worth the knowing, in the humbler pursuit ; and his tools will win him the sweet bread of independence, until he may become able to take wing for more elevated regions, with the ordinary securities against want on the one hand, and servility on the other.

Scott was many years engaged in this laborious way. He always showed a strong predilection, at the same time, for the exercises of invention and original thought; and many a design he drew. While no more than a lad, he not only engraved, but also composed the illustrations of several books. The *Casket of Literary Gems*, a work which once enjoyed its share of popularity, contains a number of his early conceptions. Amongst other things, he engraved a set of prints from Stothard's designs, for the illustration of Thomson's *Scottish Melodies*: and they demonstrate him to have been proficient in the art. Nor did he ever lose his skill; for he subsequently etched the Monograms and the illustrations of the *Ancient Mariner*, with his own hands; and they are cut with singular freedom and precision of touch. It may also be mentioned that, just shortly before his demise, he had completed an arrangement to etch a series of wonderful designs, expressive of the emotions produced by the contemplations of sidereal astronomy.

He was not long, however, of turning his devout attention to the art of painting; and that during the precious bye-hours of the busy workman. Nor can there be a sight more touching and inspiring than that of a high-spirited young man, industriously engaged in the harder day-work of the world, devoting those hours of morning or of night, which souls of less ethereal temperament are glad to bestow upon rest or relaxation, to the solicitous development of that which is highest within him; whether his personal tendency spring towards philosophy, art, or science. If such sacred times were always regulated by the considerations of prudence, not embittered by pecuniary dependencies, and unfevered by the greed of applause, they would never be the harbingers

of woe. If the ingenuous youth could only be content to discover the true, or to re-create the beautiful, and remain as indifferent as Nature to what mortal man may think of either his beauty or his truth, such hours were indeed the glory of his life and the joy of the world.

Scott had not yet, however, attained to the serenities of spiritual life. He was ambitious of distinction, as well as enamoured of untold beauty. Strong in aversion and ardent in choice, he conceived an antipathy to his first profession. Everything shared the dislike of this quiet but impassioned votary, which stood in the way of his entry into the upper spheres of art. The burin was consequently abandoned, and the young engraver became an eager competitor with the 'lords of fame' for the honours of historical painting. There has been found, amongst the chaos of artistical débris he has left behind him, a very characteristic sketch bearing the date of 1828, and referring to this crisis of his career. It represents himself, seated at his graving-table indeed, but hurling the implements of the craft away from him ; and that with irrevocable decision, if not with disgust. A certain disdain, in truth, not only for whatsoever is absolutely mean, but also for whatever might seem to partake of that quality relatively to himself, was unquestionably a prominent feature of his character.

It was in this twofold spirit that at twenty-two he undertook to lead the life of art, and that in its most exalted round ; athirst for greatness, not only in substance, but also in name. It was a brave and proudly taken step ; but in so far as his future comfort in the world was concerned, not a prudent one. Without assuming the profession of portraiture, with a view to the securing of physical wellbeing, and as a means towards freedom for loftier aims, this still but fervid

youth plunged amid the sea-deep perils of a purely ideal existence. Were it right to consider the life of the artist only from the terrestrial point of view, one might here exclaim—‘ Ah that some sagacious voice had reminded thee, O generous boy, that money and money’s-worth are the inexorable, although the inferior limitations of man’s grandest possibilities in this epoch of society !’ It is more than likely, indeed, that he had to listen to many an affectionate caution of that sort : But we refuse to look upon the question exclusively in such a light. The case is simply this : David Scott early laboured under the quickest sense of having a specific function to attempt, if not to perform ; and he did well to tread down every impediment. The adventure he had resolved upon could not be complicated with other avocations, without danger to its success. The very endeavour to realise the noble object, which he had set before himself, presupposed the unreserved dedication of all his years and all his energies to its prosecution. To have executed portraits indiscriminately would have fretted his imperious sense of selection, frittered his time into shreds, and weakened his native and distinguishing impulse to the painting of man instead of men and women. On the other hand, if he had been able to produce those agreeable pictures of personal, household, local, or national interest, which are usually painted and sold in this country now, he would certainly have been wholly incompetent to the more dignified labour of making immortal works, possessed of and by those qualities which are universal and humane. It is not at present asserted that he has accomplished a destiny so glorious ; but such was the continuous object of all his efforts, during these twenty years of uncompromising toil. It behoved him, then, to leave all and follow the Pharos whose fiery light

had smitten and baptized his young brow. He had really no right to hesitate or question ; for the path of duty lay bright and clear before him, although both narrow and hard to climb. Being of a deeply religious and unworldly nature, he accordingly went forth with his life in his hand ; and he never repented the venture, even after he discovered he had been summoned to a festival, but a festival of sacrifice as well as of triumph. Nor does the event not warrant his procedure, even when taken in connexion with the lowest considerations. Thanks to the industry of his father, the ever-ready hearts and hands of a few devoutly admiring friends, and to the good prices brought by such of his pictures as did sell, he never wanted money for either the necessary or the desirable purposes of common life. He always lived in the midst of modest plenty. ' Wisdom is justified of her children.'

Besides, it is surely a doctrine strange and new to Christianity, the religion of the cross, that pains and privations are to be by all means avoided ; come what may over that immortal essence, which can flourish without the dews of sensuous comfort, and defy the stings of outward suffering. Doubtless those penalties and compensations, which were paid by Scott for the privilege of twenty years' habitual dwelling with the highest of thoughts and feelings, were good for him. They corrected certain evil biases of his original nature ; they purified and fired his aspirations ; they deepened his trust in goodness ; they opened new worlds of insight into the relationship of God and man ; and they had brought him nearer home, when the hour of loosing from his work arrived ere it was yet noon. It is moreover our mature opinion, that they were instrumental to his peculiar development as an artist ; but of that hereafter. In

the meantime, let the light-hearted children of success, applause, and propriety, not be too sure that they have fallen on the better way ; for perhaps this son of sorrow has long been 'there sitting where they durst not soar.'

It was in these circumstances that Scott began his career as a painter. Self-willed yet sensitive, ambitious but despising the arts of rising, impulsive and industrious, well informed but imaginative, studious yet imperiously original, he commenced as he has ended. The unbroken unity of his course, indeed, is as remarkable as its integrity and self-reliance. On the very threshold of his enterprise, he knew the absolute necessity of both the knowledge of anatomy and the use of models. He not only studied that science with care in the University ; but he likewise united with John Steell and a little band of young artists, in the establishment of a sort of life-academy. This was in 1827 ; he is reported by his companions to have been the soul of the movement ; and they were not long in drawing from the model in a room in Infirmary Street. It appears that Woolford had made a similar attempt some twenty years before ; but this spontaneous and decisive effort of Scott's must always be regarded as the origination of studies from the life in Edinburgh.

The first picture he brought before the public was entitled *The Hopes of early Genius dispelled by Death ; or, The Vision of the Youth of Genius dispelled by Death.* Although its merits as a pictorial work are necessarily small, it certainly gave assurance of the future man. The young poet lies upon an open book, his head pressed to the ground by the left hand of Death, a lurid, three-horned, fire-eyed figure with lightning in his right. He is supported against the fatal pressure of disease by the

arm of an old man, the representative of vitality or time. The visions of his precocious prime withdraw into the ascending distance, in the semblance of a pair of sister-nymphs. This crude but thoughtful work has already been regarded, by the eye of affectionate criticism,\* as not only indicative of his future excellence in conception and execution, but also as presentimental, or at least unconsciously prophetic, of his own fate. But the application does not hold. Scott's was too assuredly an early genius, but it reached its full maturity. He lived and laboured seven years after he had touched the Dantean zenith of human life, the age of five-and-thirty : and his circle was completed. Ill in body, and sombre in the disposition of his mind, he was frequently despondent and always anxious ; but neither the hopes nor the visions of his youth have been dispelled. They remain, let us hope, with him to-day, as the motives to everlasting progress in the celestial life : and they remain with us, for many a score of years to come, in a numerous array of pictures and designs. The truth is, that at the time of painting his first-exhibited picture, he was very unwell ; as he has recorded in a note, 'from groping aspiration.' Bearing the date of November 1827, these significant lines are still visible in his scrap-book :—

'This quickly must be past, this struggle cease,  
 And in the cold clay quiet I shall lie,  
 Where anxious Care corrodes no aching breast.  
 I've only lived to feel, and then to die :  
 To die, and sink away from the bright sun,  
 To die, and fall from off the cheerful earth,  
 To die without the race of glory run,  
 To die while yet exulting in the birth  
 Of Hope and Joy ! Can this be ? Yes ! I feel  
 Death clasp me round, like a great hand of steel.'

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\* *The Scotsman*, March 7th, 1849.

In fact he was seized by the spirit of melancholy at his very starting for the goal. Carefulness about his future destiny oppressed him from the first. He was too delicate of build, and too solitary of soul, for the rough adventures of the world. Long before any real or supposed neglect by the public, or misunderstanding of his very aims by the press, or disappointment in friendship and in love, had vainly endeavoured to chill his spirit, he was the victim of care and apprehension. Years before he would have dared exclaim with Coreggio, 'I too am a painter,' he had muttered in the solitude of his diary :—

' From off my brow, O raise thy chilling hand,  
Anxiety, slow digger of the tomb !'

It was his nature to be sad. Of a feeble constitution, and conscious of the possibilities of art, he could not be otherwise. It was his portion in life ; and it was only somewhat confirmed, not by any means produced, by the disappointments and worse health of his adult experience. He was too great a man to be beaten down by misfortune ; and still more, to be cheated of his joys by the mere privation of what he scarcely sought. Both the relenting public and his embittered admirers may rest assured, once for all, that the want of neither general appreciation nor ample revenues had anything to do with the sorrowful seclusion of his character, or the comparative earliness of his death. As for the latter, it was the foregone conclusion of a radically feeble temperament of body, united with a total incapability of husbanding his scanty forces with skill. If he had passed his days in the hot flush of prosperity and delight, he would only have lived the faster and died the sooner. Like Burns, Shelley, Byron, Raphael, and many a humbler



name, his constitution was prefigured unto a brief duration. His everlasting dissatisfaction was the natural resultant of that short-wound bodily mechanism, and a soul awake on every side to the mystery of life. That feeling for the infinitude of being in all perceptible directions, which is to us perhaps no better than a thing to be criticised, was to him an unreposing passion. His sense of personal limitation, of every kind, was a fierce Nessus-shirt around his soul. Travelling constantly between these extremes, and never finding the secret of their reconciliation, he was a melancholy man. One morning in the July of 1844, he sat under the fragrant shadow of a walnut-tree in his garden, and a cheerful friend was by his side. It was Saturn and Mercury; but, alas, they had wandered far from Olympus! The sun was undimmed, the sky was of a languid blue, the air was swarming with light and heat; and the trees were all as quiet as if they listened to the cool and liquid song of a blackbird, which began to pour from the dome-like top of one of them. Is not that melancholy? whispered the saturnine painter. I declare, exclaimed the more mercurial spirit, you will defame the very sun, and swear it is a melancholy sight! So it is, was his response; that unending solitude, always giving and never receiving, is surely sad.

On another occasion he suddenly broke silence and said, How is it that I do not, that I cannot enter into these flowers? I am for ever outside of them. I cannot hear what they would say: is it my blame?

This was his vivid and shy way of expressing an unremitting sense of the fall of man from his original communion with nature; a feeling of utter dissatisfaction with the poor degree in which he was able to lead a higher life than that of the senses; and an inextin-

guishable longing for paradise regained. It was one of the forms in which that reserved soul expressed to the ear of friendship his manifold sense of error. He lived as habitually in this sacred mood, perhaps, as any man of equal mundane culture in his day. The same homesickness of the immortal spirit is also uttered through some passionate lines in his journal; which are here transcribed solely for the sake of impressing the reader with this rare and noble feature of the man.

'O beautiful Sun,  
 How shall I meet thee, see thee, know thee enough?  
 I grasp, but hold not; I see, but perceive not;  
 I feel, but touch not:—Ever beyond lies all joy.  
 Ever, away flitting, escapes the good of good.  
 It is named, it is thought present; but it is far.  
 Good, beauty, light! we are lovers ever unwed:  
 We love, yet cannot be one, cannot!  
 O Spirit, what art thou then? And I, what am I?  
 Are thought, sense, and nature one?  
 Or, my soul, art thou not soul enough to throw thyself  
 Into their full embrace?  
 Can I not drink thy brightness, light!  
 Can I not bathe in thy serenity, blue of heaven!  
 I have not enough, bright Sun, of thee.'

Such was the spirit and such the circumstances in which Scott espoused the profession of the painter. Instructed by the instinct of genius that in order to the creative representation of humanity, the dimensions of nature must be used, although the artistic imitation or reproduction of men and things derives an additional charm from the smaller scale on which it may be effected with propriety, he stretched his canvas as large as life at the very outset of his career; and he would never have done otherwise but for the necessities of circumstance. Lot fleeing from the Cities of the Plain, Sarpedon

carried away by Death and Sleep, and Nimrod the mighty Hunter, were among the earliest results of this expansive energy ; and they certainly evinced remarkable grandeur of composition, not a little knowledge of drawing, much power of expression, some command of colour, and a rare degree of poetical feeling for the central and organific idea of their several subjects. The last of these characteristics was, however, the most wonderful and distinguishing feature of those early works, as well as of all his subsequent efforts. Not only to have an idea, and always a great one, but to have been seized, mastered, penetrated, and overflowed by that idea, was his peculiar quality as an artist ; and he certainly stands alone in the history of British art in this deep respect. It was visible in those early productions, at all events, that a strong, subtle, Titanic, curiously caparisoned, if not an 'erring and extravagant spirit' had entered the lists. Standing before those young works, one can understand the rapturous admiration and the daring with which their mounting author exclaimed—'I could do something in this style,' after thoughtfully inspecting an outline of Michael Angelo's Last Judgment in the portfolio of a well-beloved fellow-student who had just returned from Rome. There is no avoiding the observation, in fact, that in the predominant intellectuality of his inward life, and also in his oppressive sense of the afflicted Will of Humanity in war with things, he belonged essentially to the order, though by no means to the very class of Buonarrotti, the most vatic of all Christian painters. But we are warned not to indulge in anything like criticism, either of his characteristics as a painter specifically so called, or of his particular works. Our business is much more with the man and the artist than with the painter, else there were no hope of doing him justice within the necessary

limits of an Essay like this ; and in such a case it is better to say nothing at all than to say too little.

Suffice it then that in 1832 Scott went to Paris, lingered with delight in the gallery of the Louvre, and examined that of the Luxembourg not without satisfaction ; that he proceeded by way of Geneva to Milan, studying the Cathedral, the remains of Da Vinci's Last Supper, the Academical Gallery, and the 'well-drawn, thin-painted, tinlike pictures' of the modern Milanese ; that he passed, with a mind awake and open to all kindred impressions, through Bergamo, Verona, and Padua, to Venice, where he remained some time, painting busily in the Palace all morning, spending his evenings among the works of the Academia, and otherwise striving to apprehend the nature of Titian and his school ; and that not with the most satisfying of results. It is at this point in a journal of his travels in quest of culture and inspiration that he exclaims :—

'But, oh ! what is to be seen here to fulfil the idea of what one should and can perform ? Nothing. Titian is an old man without imagination in all his works ; Tintoretto, a blind Polyphemus ; Veronese, a Doge's page.'

Before advancing to Rome he visited Parma, 'the place of Coreggio ;' Bologna, with its sombre churches, pictures, and air ; Florence, the tomb of Buonarrotti, Alfieri, Machiavelli, and Aretino, not to mention many others 'who *really are* dead ;' and Sienna. At last he arrived in the Eternal City. He dwelt there more than a year ; searching its multitudinous works of art with a free and speculative eye ; writing down the results of his investigations in an ample, terse, and most instructive note-book ; inditing a world of lawless poetry ; and painting with unfailing industry. It was in the

midst of the magnificent influences of the capital of old Christendom that he began the colossal picture of Family Discord ; a daring undertaking, which he afterwards finished at home, and which he never ceased to regard as the most individual and the greatest of all his works.

The scene is laid in the porch of a doom-laden home ; and the imagination of the spectator is transported into some Pelasgic or other primæval epoch of the world. The son has risen up against the sire ; the patriarchal giant, closing his eyes, and bowing his head under the mighty sorrow of such a conflict, has left his native seat between the pillars of the house, and he struggles impotently forward ; the house-mother and a daughter hang upon his arms, dragging him down with their very efforts to sustain him against the glorious rebel. Trailing on the ground before them, yet erecting his head and trunk like a young lion, the first-born lifts up the right hand of an accusing child with a passion of energy which is truly grand. There is a cincture round his temples, and a sword under the pressure of his brawny left hand ; his scanty raiment is partly of lion's skins, and partly of crimson-purple : for he is predestinated to the ascendancy, as Saturn superseded Chaos, and was overthrown by Jove ; the latest being still the best. Beside him lies a fallen tripod, and an image of stone, a household god, broken in pieces. The father had made unto them gods that were no gods ; but the son had been with the Assyrian on the tops of the mountains, seen the stars, subdued their adorers, and could no longer worship before the paternal idol !

The patriarch himself, however, is the principal and the greatest figure in this representation of the eternal strife and tragedy of the progress of Humanity from

generation to generation ; and that whether considered dramatically, symbolically, or anatomically. Blind and helpless fury, pain never to be assuaged, and a certain consciousness of the dutiful necessity to succumb, are all presented to the eye with irresistible force. Of the artistic properties of this sublime production we refrain from speaking at large ; as well as from the attempt to describe the other figures of the group. The treatment of the colour and shadow of this work is the very best exemplification of Scott's maturer ideas concerning the sensuous portion of pictorial art. The whole canvas is as dark as necessity and fate could render it ; the breadths of colour are small when compared with the deep, dead shadows of the piece ; and most assuredly no bright hues are employed for the purpose of relieving the mind, as some critics would express it, that is to say for the spurious purpose of conveying a pleasure in discord with the essential sentiment of the work. The handling is thick, solid, and massive.

Such was the first-fruit of his studies in Italy and his previous independent, almost solitary growth at home. It was well for him that he had been unable to enter that museum of the noble arts before his individual character had organised itself into a distinct and manly form. This circumstance placed him far above the customary weakness of making elaborate copies from particular pictures ; and left him time to enrich his portfolio with a vast number of sketches, indicative of the ideal intention of the pictures he admired. It was impossible, however, to devote himself exclusively to works so large as that which has just been described. The number of spectators, capable of seeing the thing signified in symbolical representations, whether in picture or in poem, is by no means large : while corporate bodies

are always behind the progress of individual culture ; and only public halls can either contain, or harmonise with colossal orphic paintings, such as the Family Discord of our advancing race. Scott had accordingly to paint a numerous array of smaller works in the succession of years. He has produced a series of pictures of historical character ; Mary Queen of Scots receiving her death-warrant, Jane Shore found dead in the street, Richard receiving his Nephews, Gloster conveyed to prison at Calais, the Merry Wives of Windsor rehearsed before Queen Elizabeth, and others ; and they are all pre-eminently graphic in expression. There is also a number of presentations of generic character ; Paracelsus the Alchemist, the Triumph of Love, Peter the Hermit, Hope passing over the horizon of Despair, and the like ; and these belong to a department in which he greatly excelled. Then there is likewise a charming string of emblematic or allegorical pieces ; Love and Time, Ariel and Caliban, Puck fleeing before the Dawn, Beauty wounded by Love, Ariel and the Mermaid, Children in pursuit of Fortune, and some more ; almost all of them distinguished by considerable delicacy of touch, and exquisite though severe and very simple harmony of colouring. Nor must his illustrations of the Divine history of Christ be forgotten ; the Taking down from the Cross, the Altar-piece of St. Peter's Roman Catholic Chapel at Edinburgh, the Dead rising at the Crucifixion, and the Ascension of our Lord. But it must be confessed by all, that notwithstanding the profound thoughtfulness and feeling of every one of these things, David Scott was never completely himself within the confines of the smaller canvas. Carrying down the colossal mode of treatment, which was necessary to the purposes of grand tautegorical or symbolical painting, into little

pictures of incident, character, or allegory, he marred the perfection of these minor productions.\* The consequence is, that there is scarcely one of them that does not bear the marks of self-inflicted wrong. This is especially observable in the anatomy of the limbs, in the character of the expression, and in the colour of the pictures in question. They are the noble, but over-pronounced productions of a giant compelled to work in little. Accordingly, with the exception of Achilles mourning over the body of Patroclus, and of Orestes pursued by the Furies, Scott never did his peculiar genius and accumulated powers anything like justice after the completion of his Roman and climacteric work, until he spread the ample canvas for Vasco de Gama passing the Cape of Good Hope.

The incident and mere body of this imperishable work are taken from Camoens' description of a sudden storm which threatened to overwhelm the ship and annihilate the enterprise of the hero of Portugal, when endeavouring to double the Cabo Tormentoso—a description in which the poet evokes the Genius of the then solitary seas of that tempestuous region. Adamastor gathers himself up from the weltering waters over which he reigns, and rises gigantic above the surge. Ashy pale, his head bristling with hairs of withered red, livid-eyed and loud, this potent monster opposes the advancement of the gallant explorers with all his armoury of terror and of tempest in vain.

In the picture it is a thick night-scene. The good

\* To allegorise is to horizon or define one thing by another thing; to tautologise is to define a thing by that which is a part of itself, by a symbol or something which is *cast along with it*, or is coincident with it; as etymologists are aware. To represent humanity by a man is to exemplify the tautological method of poetry; to do it with success is to be a poet of a very high order.



ship is caught and entangled in a wild chain of lightning, dashed from the hand of the fiend, which not only furnishes the rapid light and shadow of the circle, but signifies the thunder-crash of the moment we are permitted to gaze upon the hero and his companions: And what a ship-board it displays! In the centre is rooted the figure of de Gama, full in the blinding but momentary light, his right hand tightening the helmet on his head and shading his eyes, his left hand pressing his cross-hilted sword upon his faithful heart, his manly countenance full of concentrated purpose, his feet planted immovably upon the reeling deck, and his whole frame and attitude expressive of the imperturbable trust and courage of genius and of virtue. He searches the thickest of the storm with his unquailing glance, and questions the disclosing lineaments of the apparition.

The spirit is ahead of the labouring vessel—a vast, vague, half-visible and fearful Colossus, conjured out of the palpable darkness of the distance.

Such are the circumference and the middle of the work. It is in the antagonism of these principal elements, and in the equipoise of these opposing forces, that the painter has most signally displayed his poetical insight. Around and against the hero are arrayed the treacherous night, the lightning with its angry roar, the enraged billows, the exulting demon of that lonely zone, the distracted ship and her more or less self-abandoned crew, and the impending ruin of the great undertaking for which he had prayed and toiled his whole life long; but he is steadfast, self-contained, and equal to them all. It is a heroic man filling his sphere, sufficient for his circumstances, and a match for fate. It is a universal text. It stands for Homer, St. Paul, Dante, Michael Angelo, Luther, Shakspeare, Cromwell, Kepler, Luis de

Camoens, or for Scott himself, as truly as for de Gama. Nor is any man alive who may not see, and ought not to see the perfection and express image of himself in this self-sufficing Vasco, with his faith in the Cross, his confidence in himself, and his ready-handed use of means. This is one of the great and beautiful lessons of this noble epic.

The area of the piece is filled with concentrical rounds of an imaginary crew, the whole picture being remarkably circular and self-fulfilling in its nature. The various figures which crowd around the pillared hero of the scene, present the diverse effects of the same circumstances on a number of the different characters humanity takes on ; and they help to insinuate the moral purpose of the artist more effectually into the heart and imagination of the docile spectator. In order to satisfy the historical demands of the incidental subject, the personages are drawn from the time of the voyage ; but its poetical or universal nature has permitted the painter to depart from literality of detail with the strongest effects. The bitterness and cursing, even in the hour of trial, of a couple of sensual mutineers, bound to the capstan at the feet of the discoverer ; two pairs of mariners, deriving the diminution of their terror from clinging to one another ; the dependent but chivalrous audacity of a young nobleman drawing his sword behind the commander, and a group of mailed knights bristling forward with their spears beyond the noble youth ; an old pilot on all fours at his captain's feet ; an athletic soldier daring the demon with the cross upheld before the mast ; a monk paralysed with horror ; a Moor upbraiding him for the impotence of his creed ; and a dog howling to the winds, are some of the features which are scattered with equal prodigality and skill between the hero and the surrounding night.

The technical merits of this grand work are very great. Not only is the drawing true, powerful, and expressive, but its vigour is supported by an equal strength and virility of touch. The colour is remarkable for its predominant unity of tone over the whole canvas, while it is clear, distinct, and satisfactory in the details. The management of the light and shadow is excellent, being steady, unaffected, and without exaggeration, yet not toned down so as to weaken its force. When you go near the painting, you are struck by the massive body of colour which has been used in the production of a surface so homogeneous. In addition to these things, and far above them when intellectually considered, is that unity of character pervading the style of the whole multitude of figures, which gives a genuinely epic feeling to the work. It is our opinion, however, after years of acquaintance with it, that this crowning creation of the genius and industry of David Scott is more than epic. It is also a symbolical picture, representative of Humanity in the progress of its august and perilous voyage; the painter worked at it under this idea also; and it is from such a point of view alone that all its significance can be drunk into. But we must not insist on it at present, and it would be impertinent to discuss any less important production of our author's, after having paused so long before his masterpiece.

This sketch would be imperfect, however, without particular reference to the literary exertions of its subject. He appears to have early found some vent for his opinions and emotions in writing. His journal and letters, written during his sojourn on the Continent, have already been alluded to. A vast quantity of poetry has been found among his manuscripts; lyrics, odes, dithyrambics, orphics, and especially an epic in six

books, entitled *British Deed*. It will be time enough to discuss the qualities of these productions when they shall have been given to the world. Not to speak of any earlier and cruder essays, the most decided attempt he ever made to give a permanent literary expression to his ideas, concerning the theory and practice of plastic art, was published some years ago in the pages of *Blackwood's Magazine*.\* It consisted of a series of curious dissertations on the distinguishing characteristics of Michael Angelo, Raphael, Titian, Coreggio, the Caracci, Caravaggio ; and of the schools of art, as well as the kinds of men and circumstance, they severally represent. It needs scarcely be mentioned that the differentiating qualities of those great representatives are not sought in the external properties of their works ; but in principles holding directly on the generic constitution of the human mind, the modifying influences of time, place, and personal idiosyncrasy not being overlooked. The differing creations of the masters are considered as the natural and necessary, though the plastic and variable, exponents of the differing ideas by which they were severally possessed. They habitually looked upon nature and man from totally diverse points of view, and therefore their representations of the ideal of human life were wholly dissimilar ; circumstances which obligated modes of treatment equally dissimilar and diverse. Those classifications, for example, which designate the Venetians as the school of colour, or as the ornamentalists, are shown to be as shallow as they are specious. Our author penetrates to the secret of Venetian life, and finds it sensuous to the core ; he seizes the theory of Titian and his subordinates, and discovers that it is

\* Numbers for February and June 1839, and for January and March 1840.

essentially material : and then he tries to deduce all the characteristics of their colour, their light and shade, their ornament and their composition, from these premises, with what success the student must judge for himself. But the central and deepest idea of the remarkable pieces of critical literature, now described, is the proposition that the sole purpose of art is the sustaining of humanity in man : a simple, obvious, yet profound principle which never forsakes him in these essays, and which was never forsaken by him in life.

This way of criticising works of art from within is certainly far from peculiar to this professional critic. In truth, the existence of any other mode of investigating such subjects will hardly be credited by the more secluded student of modern æsthetics. Yet it is equally true that neither the artists nor the public are much accustomed to consider those things from this exalted point of view ; although it is the only one which is tenable to-day. Those dissertations, then, are not without their every-day value, as well as their intrinsic worth. The studious reader will find them surcharged with thought and plentiful in illustration. They glitter with quaint allusions, and they are sprinkled over with many a felicitous image. They sometimes soar into the neighbourhood of eloquence ; and quite as frequently they dive towards unknown metaphysical depths, which they never reach. In a word, they are so crowded with information, knowledge, fancy, reasonableness, imagination, and poetical if not philosophic insight, that they should unquestionably be republished in a separate volume, in spite of their literary defects.

In respect of mere style, they are surely the oddest incarnations of good thought one ever perused. At the very first glance, you perceive that page after page is

spotted all over with eccentric, pedantic, and even altogether questionable phraseology. The Latinism of Isaac Taylor, the rugged word-coinage of Chalmers, or the gigantic Tentonism of Carlyle, seems the quintessence of purity when compared with the wanton vocabulary of these otherwise excellent pieces. As to their syntax, it must just be confessed at once that never were there composed such sentences for length, involution, and confusion. The grammatical forms, the punctuation, and the paragraphing, are all defective. The style reminds one of old Beccher the phlogistian, who professed to write in Latin, but thrust in a German word or two whenever he was in distress, and that was every other comma. Yet if all these knotted and inter-twisted heaps of rich and radiant speculation were combed out with care, they would deserve the grateful acceptance of the commonwealth of letters. The qualities by which they are obscured, or offuscated as their writer would have said, were the result neither of pedantry nor of affectation, but of a mind containing far more knowledge than it could put in order ; and, in fact, of a habit of soul which was always more or less inarticulate. It must be remembered that the art of writing with lucidity is a very difficult one ; and it is proportionably more so, the more complicated the thoughts which one endeavours to put forth. It is an accomplishment to be achieved only by the combination of natural facility with energetic perseverance ; and few are so happy as to prevail. So very rarely, also, has one and the same man ever attained to the satisfactory expression of himself in more kinds of utterance than one, that it would have been truly wonderful if Scott had approved himself a master in literature as well as in art. Some one once remarked with surprise that the illustrious Thorwaldsen had no conversation :

You forget, said Chevalier Bunsen, that Thorwaldsen speaks in stone. Scott was an exemplification of the same fragmentary nature of the individual, in contradistinction to the universal faculty of the race ; and everybody must be content to be the same. The mute poetry of picture was the native language of his expressive soul ; and his aptitude for the acquisition of other modes of speech was neither strong nor fine.

His conversation was just like his prose writing ; elevated, thoughtful, and original ; but also dim, circumvented, and half-spoken. Yet there was every now and then a vivid phrase or two ; and occasionally a point as bright and sharp as a rapier. His more exalted talk, such as he held with Wilson, Haydon, De Quincey, Chalmers, Moir, Steell, Emerson, Gilfillan, and such as belong to the levels which are indicated by names like these, was like the hurtling movement of overcharged clouds ; and a fork of unmistakable lightning sprang from the cumulus at intervals. In general society, he was accordingly slow and unintelligible. One required to meet him among congenial friends to descry the wealth he owned ; but even in such propitious circumstances he was the least articulate of thinkers.

The English Opium-Eater visited him one day a few years ago for the first time. After having left him, that great conversationist exclaimed, ‘ Is it possible ! when I met him the other evening, I thought him the dullest of men ; but now I have been an hour with him among the tombs, I find him quick with thought and the most interesting of men ! ’ The terror-loving imagination of the great dreamer had been instantaneously fascinated and held down by the picture of the Resurrection on the day of the Crucifixion ; and he had scarcely examined the other works around him. Emerson was strangely

impressed with a sense of the greatness of Scott's character ; but noticed the inadequacy of his verbal communications in ordinary circumstances, and said, 'How rich I find him in the studio !' There one was alone with him, in the midst of his natural sphere ; and whosoever was equal to the conference was sure to be entertained with many a genuine gleam of intellect and feeling. It was there and then that he glowed. 'They told me he was cold,' was the remark of Margaret Fuller after a morning in the studio ; 'but he is as ardent as man can be !' If, however, he was in the presence of such as were not in unison with him and his ways of thinking, he was either dumb or singularly inexpressive of his protest. There was a gulf between him and the numerous disciples of certain schools in philosophy and art which he had no skill to bridge ; a thing which any one may do with the help of courtesy and the open recognition of those broad humanities which are common to all the systems in the world. It was his cue to hold his peace, not without contempt ; or else to try assault and battery upon his enemies, without skill, without understanding either their positions or their method of fence, and without any success, for nobody understood a word he said ! Even in the most favourable circumstances, indeed, he was far from fluent or clear. Nor was he unacquainted with the fact. Shortly before his last illness, he said to one of his friends, 'I have just been thinking how you always seem to say exactly what you wish to say. Now, I have never been able to do that.' It was quite true, but not to be lamented, for it is not every man's duty to talk ; and those are certainly the greatest and the happiest of mortals to whom the task, not of criticism, but of creation is assigned.

It will be readily understood, that this secluded mystic



was not calculated to shine in society. Even in the social circle of friends, he was never gay nor sprightly ; and in society, formally so called, he was both rigid and impedimental. Without any talent for the easy interchange of common thoughts and ordinary sentiments, he could not understand that the superficial may be elegant, and the obvious humane. Accordingly, he visited the hero of a hundred drawing-rooms with more contempt than the creature deserves ; and even treated the man of equal culture with himself, who also relished the pleasures of society, with undue severity. Standing with his customary solemnity one night in the thick of a brilliant and crowded *conversazione*, he bent down and whispered in the ear of a recluse as hostile to the life of fashion as himself, ‘ How do you like this sort of thing ?’ The question having been retorted on himself, he muttered, ‘ I think it is miserable trifling.’ Yet it appears that he did once perpetrate a witticism, and a witticism not without its humour and point. It has long been traditional amongst his brother academicians, that once upon a time, probably about the year ’28, a little fellow pestered him with irrelevant inquiries concerning some projected picture. ‘ Are the figures to be actually the size of life ?’ said Master Malaprop. ‘ No,’ was the sardonic reply, ‘ they’re to be the size of you !’

In this connexion should be mentioned a minor feature in the character of Scott, which is not only curious in itself, but which could not have been easily deduced from the phenomena of his higher life. It consisted in the most condensed detestation of all lubricity as to matters of fact in others. If the grave will pardon the phrase, he was too conscientious, and was apt to be troublesome in the affairs of business. In anything like complicated negotiation, he was rather a ‘ uncomfortable cousin’

on this account. He was as punctual as a clock to his engagements, and you could calculate on him like a planet. Those slippery people, whom you cannot count upon, were the objects of his unmitigated aversion, for he could scarcely separate the culprit from the crime. He put a summary close in several instances to the closest amities he was accustomed to admit of, on account of single broken appointments. The pain was greater to him than to the frivolous truce-breaker of course, but he was inexorable. He reminds one of Beethoven, who relentlessly and at once dissolved every friendship which began to be incomplete. Scott, perhaps, carried this high temper to excess ; but the principle of it is sound, if applied with charity and moderation. It is to this intense antagonism that his want through life of those humbler, warmer, more nestling and enduring relationships of affection, may have been partly owing. It was one day asserted by Emerson, that there was little or no essential poetry in Bailey's *Festus*. Scott contested the point. He was requested to quote a single verse, to which Tennyson's definition could be applied with propriety,—‘those jewels five-words-long, which sparkle on the forefinger of time.’ He accepted the challenge, and repeated these words, with his peculiar and melancholy cadence :—

‘Friendship hath passed me like a ship at sea.’

There now remains to be considered, the most important thing of all, his relation to Christianity. A man's religion is the central force of his whole being, and it imparts the shape to all that he does and becomes. To judge solely from his labours in the spheres of painting, design, and criticism, Scott might be hastily set down as the fond disciple of an altogether abstract

faith ; a faith inclusive of monotheism, pantheism, Christianity, and even polytheism, in one unheard-of and ideal scheme. Considered more thoughtfully, they show him to have been the harbinger and representative in the region of art, of that wide-spread and yearning aspiration, which is everywhere craving an enunciation of Christianity less exclusive, more catholic, and less scientific or dogmatic than those which are predominant in Roman, Genevan, or Anglican Christendom. Deducing his religion, on the other hand, from the spotless purity of his moral life, the rigour and chastity of his words, the unobtrusive lovingkindness of his demeanour to his relatives and friends, the grim but knightly courtesy of his bearing toward the stranger, and from the high spirit in which he did his daily work, one might have concluded him to be a lingering instance of the Scottish Covenanter, who happened to be likewise a man of travel and cultivation. The few and simple facts of the case appear to have been the following, at least as nearly as such things can ever be seized and recorded ; and it is not our province either to condemn or to approve, but only to state and explain.

He early became a sceptic as to the main points of what may be called, for the sake of being at once inclusive and specific, the popular Christianity ; but never one of those defiant unbelievers, so numerous among the young men of his day, and of that which preceded it. That is to say, he never rejected the Scriptures as mere priestcraft and old wives' fables ; nor despised either the scholastic or the lay theology of his countrymen as little better than superstition and ignorance ; nor smiled at the institute of the Church as one of the puerilities of the Race, to be superseded by the manhood of the wise. His power of imagination, his depth of sympathy, and

his trust in the heaven-directed tendencies of humanity, all preserved him from the beggarly pride of that kind of disbelief. The lowest thought he ever entertained of Christianity is contained in the theory that the Church, its creed, and its ceremonial, are the variable, necessarily faulty, but inherently sound embodiments of the spirit pervasive of the Old and New Testaments. Nor were these sacred writings at any time regarded by him as less than the truly inspired literature of a peculiar people, incomparably more intuitive of spiritual truth than any other, and therefore the leader of the world in that sphere of life. Even in this early epoch of his adult life, he was no rationaliser upon those points; reducing Jesus Christ to a moralist, his doctrine to an ethical code, and his apotheosis to a senseless fable. His tendency was to the opposite extreme; he idealised the whole fabric into a mythology, big with otherwise unspeakable significance; in a word, he was a Christianising mystic. It is deducible, in fact, from the Six Monograms, his Essays on the Italian Painters, and his manuscripts, that, by the time he had risen to the zenith of his ascent at Rome, Christianity had become resolved by this devout theosophist into a scheme of sublime and beautiful symbolism.

After his return from the Continent, he met with many disappointments, lived much alone, and began to crumble in constitution. In these circumstances, he appears to have come by degrees into a more particular and exclusive relation to Christianity. At all events, religion became a more personal thing with him. He learned at last that self-renunciation is the very first beginning of the spiritual life; attained it in a rare degree; and descried in the story of the Cross both the substance and the symbol of practical godliness. Dur-

ing that development of his course which found its point of culmination in the painting of de Gama, he may be described as a proselyte of the gate. The elders might have said of him, as they honourably reported of the centurion of Capernaum, He loveth our nation ; and gladly would he have built them a synagogue, so Christian was the charity of his soul. Deeply grateful to the Roman Church for the mighty services she has rendered to the world through means of his art, he had far too much sturdy good sense ever to dream of pouring his new wine into her old bottles. In truth, he had much of the same feeling towards the Protestant Church in its various forms. Recognising the obligations of Europe both to Geneva and to Rome, he did not find it in his heart to take up his abode in either of them, during the years of which we speak.

It is possible, indeed very probable, that his religious affections became more specific in their preferences before he died. It is certain that, during the long and sorrowful indisposition which went before his last illness, his mind grew more familiar with the entertainment of such topics of reflection. The Bible was his secret and close companion through that long valley and shadow of death.

His final malady was connected with the heart, but other equally vital organs were implicated in the ruin of this early old age. It deepened that poetic and not unpleasant melancholy, which had always characterised him, into gloom. He actually forgot at times the signal triumphs in art he had achieved, the fervent admiration and reverence in which he was held by the only men whose applause he valued, the succession of glorious joys which had been secured to him by the very nature and consecration of his life ; and complained a little, but that

not bitterly, of the usage of the world. 'This has been a miserable winter,' he muttered in a letter to a clergyman a few weeks before his end: 'This has been a miserable winter. They say the dampness of the study has hurt me; but I suspect it is the moral drizzle I have been so long exposed to that has done the damage.'

The drizzle was soon to cease, the night to come, and a new morning to arise. About the beginning of February there supervened upon his chronic diseases an acute and inflammatory attack, for he was to be spared the sufferings of a protracted breaking down. It soon laid him low, and he put his house in order. It was on the 5th of March, about an hour after noon, that he suddenly exclaimed, and that with a feeble expression of surprise,—'The world's growing dim;' stretched out his eyes to see if it really were so: and got himself in readiness for the last struggle. His aged mother inquired with maternal solicitude into the ground of his hope beyond the grave in that solemn hour. 'Mother,' said he slowly, 'I wish everything for myself that you wish, let that suffice:' and he never spoke again.

Our melancholy task is done. We have said comparatively little about the labours of this 'great Achilles whom we knew' in the department of painting; and that little, without pretending to anything like an adequate knowledge of the subject. It has been the main object of these insufficient observations, in truth, to insist that it is as a true poet that he is to be approached and discussed, in the first instance at least: a poet, working in more than one of the highest spheres of the sacred art; and a poet, concerning whose endeavours to array the ideas with which he was overfilled in suitable symbols, future critics will decide at length. We are too close upon his shining track to pronounce an impartial sen-

tence on so great a point, even if our personal culture were large and specific enough for the purpose. The great heart of the world is just : and we leave him to its final impulses without alarm.

The person of David Scott was unusually expressive of what was within the mask. The inner man had fashioned its bodily semblance with extraordinary power and precision. Those who knew him only in the sore decay of his latter end cannot form any conception of the uncommon beauty of his face and form. His fellow-student, Steell the sculptor, carved a somewhat idealised bust of him at twenty-five ; in the reproduction of which that skilful artist is now engaged, with the intention of placing it in the possession of the Scottish Academy as his presentation-work ; a work of genius and of love. Scott painted a severe and simple portrait of himself about the same age. It is in these that the look of his prime is to be seen.

He was a little above the middle size ; slender, but not emaciated ; lean and stript for the contest, but full of vigour tempered by nervous irritability ; spare, but energetic. His shape was handsome, and his hands remarkable for their approach to sculpturesque perfection. His countenance was pale and thin, but lighted up with poetical intelligence. The chin was of that fine mould which usually denotes sensibility, not blunted by the animal passions of our nature. The eye came forward, and was somewhat conical in form : its colour was a peculiar blue, the blue of night rather than of day. The brows were ample, and they projected over the outlooking eyes. His forehead retired, without sinking, under a loose and copious mass of brown-black hair, which it was his way to toss about his temples with a degree of carelessness, perhaps not unmindful of effect. His head was not very

large, especially behind. But the most noticeable feature of all were his exquisitely chiselled lips. The lower was full and round: the upper wavered; and, in later years, it seemed to curl with something not unlike the shadow of disdain. There was an air about him, which forbade the too near approach of any other man. There was a singular unearthliness and spirituality, in fine, in the total expression of his physiognomy. It was the suitable apparel of so purged and exalted a spirit.

PURE as a maiden, simpler than a child;  
Wilful as both, in life as well as art;  
Still as a priest, in manner, not in heart;  
Prouder than any chief, yet more than mild,  
Yea, very meek and humble when he smiled,  
With awful joy, before the shrine of duty;  
That shrine which was to him the home of beauty—  
Beauty, austere indeed, but undefiled.  
So walkt and workt and worshipt through the world  
Our painter true. His crescent brow half seen,  
His shadowy night of hair, his star-blue eyne,  
His melancholy lip, which sadly curled  
In chill contempt of everything below it,  
Expressed the man he was, and that was POET.



## ON THE THEORY OF SMALL DOSES.

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THE homœopathic method of cure is not an absolute novelty. The irregular administration of specific remedies is the oldest way of healing wounds and removing inward maladies; and it was practised long before the art of medicine had assumed a professional character. Bacon blamed the physicians of his age for overlaying the traditionary records concerning the special virtues of simple herbs by their 'magisterial, multi-compounded and confounding prescriptions.' Physicians, however, have not always contradicted, instead of elaborating, the crude conception implied in the ancient popular practice. On the one hand, many of the best of them have devoted themselves to the cultivation of the medical sciences, willing to leave the art as they found it, and instinctively aware that scientific knowledge had to become more extensive and precise before it could be translated into rational practice; and, on the other, the great improvements which have been made from time to time by the distinguished benefactors of the healing art, do actually come under the homœopathic formula, when investigated with a view to scientific classification. The astonishing effects, as testified by Willis, of the exhibition of sudorifics in carrying off the fatal sweating sickness of 1485, at a time when it had been destroying ninety-nine cases

out of a hundred ; the old practice of applying rosewater in diseases of the eye ; the successful prescription of spirituous liquors in purely inflammatory fevers, of mercury in syphilis, of peruvian bark in intermittent fever, and of sulphur in itch, and the practice of vaccination, are so many exemplifications of the homœopathic principle of cure. A medical reader, who will take the pains to study the learned introduction to the *Organon of the Healing Art*, will be astonished to find how easily a multitude of the best-attested and most striking cases of the happy treatment of disease in the annals of medicine arrange themselves under the same category ; while he will at least allow that, if it be not necessary to have recourse to the particular hypothesis in question for the purpose of rendering these cases intelligible, another must be discovered, for they fall under no formula yet invented. One might even assert with safety, that the very existence of the phrase *contraria contrariis*, with its logical antithesis *similia similibus*, in the terminology of the profession, shows that the *initiative idea* of homœopathy has never been wanting. Accordingly, it is by no means wonderful that Basil Valentine, Paracelsus, Stahl, de Haen, Boulduc, Detharding, Bertholon, Thoury, Störck, and others, have successively inculcated the maxim embodied in the latter with more or less of generality. It was the ingenuous, learned, and synthetical Hahnemann, however, as all the world is aware, who so strongly felt its practicable meaning as to abandon, once for all, the routine practice upon the prevalent principles, mixed and motley as he found them in the schools, and to follow the long-known clue into the arcana of the labyrinth, inspired by the faithful hope of discovering some high and homogeneous theory of therapeutics, which might enable him to restore the oldest practice of the

world on the foundation of a scientific basis at once extended and profound. Many admirable men had become aware of the comparative uselessness of the practice of physic, and even suspected it not innocent of aggravating disease and hastening death ; but this truly great physician had the precision to solidify his instinctive apprehension into a conviction of the understanding, the honesty to act on his decision, the bravery to face the overwhelming difficulties of a new investigation, and the reward of eventually succeeding to his own satisfaction. Whether all or any of his great conclusions be founded on the immutable truth of nature or not, the satisfaction with his own results, of such a man, is worthy of the most steadfast consideration by the world.

There are very few medical men now-a-days but become more and more diffident of their art, as well as more and more willing to trust the unimpeded operations of restorative Nature, the older they grow in the service of the profession ; and, indeed, a whole country of physicians seem to have, in some degree, and tacitly, come to the conclusion, that it is better to defer the invention of a therapeutic art, till the advancement of physiology and pathology shall enable them to enter on the work under more propitious auspices, while meantime they will practise their *médecine expectante*, watching and gently guiding the progress of diseases. These French physicians repose upon the authority of ancient and classical usage ; for it is a fact, that the practice of Hippocrates was liker the quiet skilfulness of a judicious nurse, than the energetic counteraction of a modern doctor. The very worst that can be said, then, of the method of Hahnemann is that, while it is consistent with a coherent hypothesis of the healing powers of medicines, and appears to revive and methodise the primitive practice

of early ages, it is the consummation of the plan of doing nothing, with the aid of a confessedly admirable code of diet and regimen. Even in such an aspect of the question, therefore, homœopathy is the distinct expression of the present practical tendency of the most enlightened school of medical sciences in the world ; and this consideration should recommend it to the profession, as well as to the public. This negative result is of itself something, and should commend the system in general to candid examination, in case it may contain something positive also, and worthy of the most strenuous inculcation. Let those who are accustomed to the employment of microscopes, bruise the pillules of this and that dilution on the fields of vision of their instruments, and say if they actually contain decillionths of grains of platinum, copper, gold, sulphur, and such other substances as are susceptible of microscopic examination. Let anxious physicians, and especially the practitioners of the *médecine expectante*, make trial of the so-called homœopathic method, believing it to be only the perfection of letting nature alone, and then report whether, with their daily results before them, they can any longer suppose that they have not been employing very powerful reagents, instead of globules of nothing.

Speculative homœopathists may say it is not fair to their cause to imply, as is done here, any inseparable connexion between the therapeutical maxim they adopt, and their incidental administration of invisible doses. It is allowed that there is no necessary implication of such a bond ; but to all practical intents there is a real one. Homœopathy is universally practised with infinitesimal quantities of the medicines administered. There are, in fact, no rules of art constructed for the practice of the homœopathic principle, except with extremely diluted

mother-tinctures and impregnated globules of sugar ; so that, if any one will practise homœopathy otherwise, he must address himself to the task of working out an elaborate code of practicable directions for himself and his followers. The practice with invisible doses is so incorporated with the homœopathic formula, that they cannot be separated in the sick-room ; although there is no doubt that they are by no means essentially united, so as to be inseparable by the mind. One might venture, indeed, to avow, in the name of the whole ingenuous part of the profession, that it is this connexion with invisible quantities, that has rendered the principle *similia similibus* so unacceptable. It is the insensible medicines the profession fights against ; and with good reason, till they be rendered welcome to the mind by some theoretical light and likelihood thrown around the exhibition of them. What reasonable man will give trial to so momentous a scheme, as a new way of dealing with the dying, unless it be first commended to his understanding, as being full of verisimilitude ? Some homœopaths, with the mock-heroic sense of persecution common among the best of innovators, as well as among the worst, are fond of indulging in philippics against the prejudices of the old-school men, as if any one ever was consciously the slave of his foregone conclusions. The truth, on the contrary, is, that there is a vast amount of candour latent among the members of the medical profession, as well as in every other body of men. Once render a plan of action conceivable to them, and they will be the last to grudge it a jury, as fearless as intelligent. Let the disciples of Hahnemann be content to be sneered at, and let them bend every energy to ex-cogitate a congruous and easily comprehensible doctrine of insensible doses ; till it shall gradually become as

difficult for their present opponents to imagine how their common predecessors could throw such enormous quantities of deleterious drugs into their patients, as it is now not easy to conceive of well-educated men prescribing the decillionth of a grain to a fellow-sufferer in extremity, without concluding that they are either fools or impostors. In a word, this is the great stumblingblock ; and if it were removed, the way would be clear. Not that the want of apparent consistency with everything else that is known of the operations of nature, would be a decisive argument against invisible medicines, or against any new practice in any other art. By no means ; but, in a matter of so grave importance, one must demand some rational initiative before he can be warranted in abandoning a patient to a method of treatment, as startling in enunciation as it is novel in detail. Once satisfied by preliminary reflection that these impalpable quantities have the copious testimony of Nature in their favour, the physician may conscientiously proceed to administer them in accordance with the homœopathic formula, and eventually decide the urgent inquiry by a cautious, prolonged, and assiduous appeal to his own experience. This is the manly course for the critical practitioner to pursue ; but the advocate of homœopathy has a previous duty to perform : He must harmonise the principle, implied in this practice with invisibles, with the general theory of Nature, so far as that has yet been discovered and received.

There is, indeed, another procedure which has some show of reason in it. The homœopathist may advance his proposition regarding doses as an empirical result, achieved more by the sedulous prosecution of an accidental observation than by forethought, and assert that he will abide by it in defiance of theoretical consistency,

having for ever established it by the grateful bedside—for himself. Reformers are generally very positive in their temper, and frequently take their innovation for the one fixed and everlasting centre of the world, to which all things must be conformed, or else fall down into loose disorder. One resolute homœopathist after another, accordingly, declares the efficacy of his diminutive pills to be as great as Hahnemann alleges, till there has gathered around the standard of the reformer a body of protestants, so large, so intelligent, so learned, so successful in research, and so able to write, as to constitute a worthy opposition to the predominant school; and out of the conflict of the two, the philanthropic student of the history of sciences may predict the best results. To the scientific spectator, in fact, this new aspect of the medicine of modern Europe suggests the assurance, that neither party has grasped the whole truth of a possible healing art; that now they must act and react on one another, till a third be educed from the contest, destined to strike out an opposition to its own included errors in the course of time: and this new antagonism shall again be resolved by the progress of discussion and discovery.

To return: The numerous able works asserting the utility of homœopathic practice, on the ground of sheer experience among the sick, are calculated to impress their opponents with the conviction, that there is certainly enough of practical truth in the principle to authorise them to give it a candid trial, since so many of their equals in whatever is scientific and virtuous are ready to stand by both the principle and the practice. Let them take the fact of the number and merit of homœopathic physicians and books as their certificate of right to make experiments upon their patients, espe-

cially since it will only be doing nothing at the very worst ; and, still more especially, as they are well used to the art of prosecuting experimental investigations of a far more formidable kind, in connexion with the custom of exhibiting sensible doses of the most potent and untried of chemicals. Such is one view of the question ; but still a theory of small doses is the desideratum.

The Professor of Mathematics at Prague has endeavoured to supply this want according to his habits of thought, his ability, and his means. Professor Döppler is not a physician, nor yet a homœopathic partisan, but simply brings the light of a certain physical distinction to bear on the question at issue, being ready neither to oppose the prevailing school of medicine, nor to abet the followers of Hahnemann ; but, having been disturbed, and probably vexed, by the noise of the uncharitable fight around him, being willing to say whatever his own communication with science, elsewhere than in medicine, might enable him to advance, to the point.

We suffer from the extreme division of labour in the sciences, though not nearly so much as the world shall eventually gain ; but the disadvantages of this endless isolation on points and little spaces would be very much counterbalanced, if there were some true connexion of the physical sciences by living men, instead of only so apparent a union by books. Let there be a helpful chivalry amongst us. Let us honour one another's sincere thought, and strive to further, by every generous means, either its perpetual establishment and promulgation, its judicious modification, or its kindly extinction. Let us revive the fine sense of honourable difference which controlled and beautified the conflicts of the deadliest foes in the knightly lists of old. Nay,



let us advance beyond our ancestors, and, knowing there is no such thing as war in nature, but only action and reaction, ending in the supremacy of the better, or else the production of a third which shall be better still, help each other to weapons and opportunity, in order that, if 'God and the right' be not on our side, we may be beaten without delay. In such high-minded contest it were far from ignoble to be vanquished, and all the more glorious to conquer, for victory should be then achieved, not in the name of one's school, but for behoof of the generous antagonist himself, mankind, and truth.

Döppler published his mathematico-physical considerations on the question of the bulk of medicinal doses in Baumgartner and Holger's *Journal of Physics*, in 1837. The gist of the argument he leads out is to the effect, that the question of greatness, respecting material operations, is altogether relative to the kind of operations investigated. The quantity of caloric in the whole world, if it were expressed, and could be condensed by some Faraday or Thilorier on one scale of the most delicate of balances, would not make it kick the beam so sensibly as the thinnest breath of air, if at all; yet, that latent heat is so magnificent in power, that certain local disturbances of its equilibrium are productive of earthquakes and volcanoes; and Newton used to boast, with that quiet pleasantry of illustration which was as characteristic of him as his sure induction, that, if he were the master of fire, he could pack the planet in a nut-shell. Electricity, too, is said to be imponderable; but the sudden restoration of the interrupted balance between such quantities of the subtle fluid as are contained in opposing clouds, themselves so diminutive in comparison with the body of the earth, is the cause of the thunder-

storm. Nothing created is great or little, except comparatively, and in relation to its effects and the method of operation. Hence there may arise on the very threshold of the inquiry the preliminary question, Whether a medicine act on the frame by virtue of its ponderable quantity, or by the extent of its surface which is brought in contact with the surfaces of the structures on which it reacts? This query must be ultimately answered by the extensive observation of physicians seeking a reply to it; but to the physicist it is plain, that if the latter be the true rationale of the operation of medicines (so far as that is physical), the homœopathist prescribing the decillionths of grains may, after all, be giving greater doses in reality than the allopathist when he exhibits his ounces. So reasons Döppler; and, distinguishing that physical superficies of a body which is the sum of the exposed surfaces of its exposed particles, he shows that the triturations practised by the homœopathic pharmacutist increase the latter surface—that is, the surface that shall be brought into reaction with the tissues,—at a very rapid rate. A cubic inch of brimstone broken into a million of equal pieces, a sand-grain each in size, is magnified in sensible surface from six square inches to more than six square feet. It is calculated in this way that, if each trituration of the homœopathist diminish his drug a hundred times (an extremely moderate allowance, I aver), the sensible surface of a single inch of sulphur, or any other drug, shall be two square miles at the third trituration; the size of all Austria at the fifth; of Asia and Africa together at the sixth; and of the sun, with all his planets and their satellites, at—the thousandth? No; but at the ninth!

The method of trituration is very simple: A grain of the drug to be prepared is carefully rubbed down in 99

grains of soluble, insipid, and pure sugar of milk, which is extensively made in Switzerland from the residuary whey produced in the manufacture of cheese; a grain out of this 100 is triturated with other 99 of the sugar of milk; a grain of this mixture of the second dilution is, in its turn, diffused through 99 grains of fresh sugar, so as to produce the third dilution; and so on to the thirtieth, or beyond it.

In connexion with the trituration of insoluble solids, it has been objected, that if, for example, a million of separate particles be contained in a grain of the third trituration, and that trituration be then diffused through 100 drops of pure water, each drop will contain 10,000 particles; that one of these drops, diffused in 100 of pure water, will give 100 particles in each drop; that the next dilution will yield only one particle for each drop; that consequently, in the next again, there must be 999 drops of water without a single particle of the original metal, or other insoluble body; and that, in fine, the higher dilutions of the homœopathic practitioner are hereby for ever demonstrated to be null and void, at least in the case of insoluble substances. This looks very shrewd, and even has an air of the recondite about it. But who assured the sagacious amateur that the effects of trituration, in the way of diffusion, though indefinitely inferior to those of true solution, are to be calculated by petty millions of particles? Besides, there is every probability that the diffusion through the milk-sugar is, at a certain point, consummated to the degree of solution itself by chemical reaction throughout the mass. Molten iron solidified has no action whatever on dry air, and, even when subdivided by filing, does not oxidate itself, without the disponent help of water and carbonic acid; but let it be reduced from the state of hydrated peroxide by

hydrogen, at a temperature not too far above the boiling point of water, and no sooner is it shaken out of the apparatus in which the operation has been conducted, than it bursts into combustion. All bodies can unite chemically with each other, if the proper circumstances be afforded them ; and all solid bodies must suffer mutual reaction, if presented to one another in fine enough division. This is exactly the case in the instance under notice : The insoluble body—say the metal—unites chemically with the sugar, becomes everywhere diffused in a degree of division far removed beyond computation by numbers, and the saccharine compound, probably still insoluble in the true sense of the term, readily passes through the closest filter, and remains suspended invisibly among the particles of the solution. This is surely the reverse of incredible to the chemical analyst. In a word, let such dilettanti as found objections on their own limitation of mechanical subdivision, and on their own inadequate conception of the nature of particles, remember the rigorous calculation of an eminent astronomer of their own day, that Encke's comet, vast and wide-spreading as it sweeps through the firmament, is composed of an air so attenuated, that if, by some transcending force, it were compressed to the density of our atmosphere, it might be folded in a walnut ; and they will never attempt the gratuitous task again.

Now, these reflections of Döpler's are certainly important ; but we must not assign to them too much value. Even if the supposition on which his computation proceeds be correct, namely, that surface, not substance, is operant in therapeutics, yet it makes very little for the homœopathic practice in opposition to the other. It is strictly applicable, even in theory, only to insoluble medicines ; and how few are insoluble ! To triturate a

drug, which water, or the juices of the stomach, can dissolve, would be a weary wealth of labour wasted, so far as expansion of its surface is concerned ; for perpetual trituration and breaking down of agglomerated particles, such as can be brought under the grasp of mortar and pestle, of agate of even the closest grain and the finest polish, were far short of the searching analysis of a solvent. Why, solution of a solid is always preceded by chemical combination ; and then the liquid compound is diffused through the free solvent, in conformity with a law like that of gaseous diffusion. Consequently, in the cases of soluble medicines (that is, in the vast majority of instances), the allopathist actually makes himself and his patient surer of bringing the sensible surface of his physis to bear on the sensible surface of the organism, than does the homœopathic practitioner with his triturated powders. In fact, all that this ingenious theory can do for homœopathy is to render it intelligible that utterly insoluble bodies, such as platinum, gold, diamond, or ignited silica, may be made potential medicaments by trituration ; and that is not much. Let us do honour, however, to the professor, for scouting the vulgarity of those pedantic sciolists, who point their petty ridicule at the homœopathic medicines on account of their minuteness in the unessential properties of size and weight. It is surely time to fling away such partial, and really gross, conceptions of the forces of nature. The very direction in which a power is applied, or in which a weight is allowed to operate, is so immensely more significant than the weight itself, that Archimedes, after having showered imponderable arrows of sunfire on the enemies of Syracuse, and burned up their vessels of war, wanted but a point to plant his lever, in order to move the world with his puny arm ! What is the weight of water with which

Watt clips thick iron as if it were paper into shreds ; and sends his huge leviathans, throbbing in their irresistible struggle, across the Atlantic, with all but the regularity of the freighted planets themselves ? Are not a few pounds of weight transformed into tons, by the mere disposition of them by Bramah on the principle of the old hydrostatic paradox ? Paradox ? One had thought the day of paradoxes was over for ever now. Everything great is a paradox at first ; because our own ignorance makes it strange. To the last of the Ptolemaics it was paradoxical to think that the sky is not a hyaline vault studded with heavenly lights. It was paradoxical to the scholastics contemporaries of Torricelli that nature can endure a vacuum. It was paradoxical to the Stahlian chemists that phlogiston is a nonentity. It was paradoxical to the Royal College of Physicians, that Harvey's circulation of the blood should not be persecuted by exclusion from their precious fellowship, as an irreligious heresy ! It is our own limitation that is the originator of such paradoxes as these.

Illustrations of the manifestations of great forces by little bodies, drawn from the region of pure physics, as distinguished from the study of animated objects, might disabuse us of this vulgarity ; and it would be worth while to marshal an array of them before contemptuous objectors, to confound their inbred prejudices. Davy, fearlessly following the principle of electrical induction by contact, discovered that half-a-dozen square feet of the copper sheathing of the British fleet are rendered electro-negative (that is, the polarities of all the innumerable particles which make up that extent of surface are reversed) by a zinc nail driven through the centre of the space, and are thereby protected from the corrosive action of the sea with its stores of oxygen, chlorine, and

iodine, everywhere ready to be let loose upon metallic substances. Nay, Sir John Herschel finds, that the relation to electricity of a mass of mercury is such, that it may be reversed by the admixture of an almost infinitesimal proportion of a body, such as potassium, in an opposite electrical condition: and with such electrical conditions are all chemical actions whatsoever inseparably connected; while every one is aware that physiological phenomena are complicated with chemical changes, as well as chemical disturbances with mechanical alterations. So impressed is Herschel with this class of observations as to observe, 'That such minute proportions of extraneous matter should be found capable of communicating sensible mechanical motions and properties, of a definite character, to the body they are mixed with, is perhaps one of the most extraordinary facts that has appeared in chemistry.'

This discovery of Davy's and Herschel's appears to have suggested to Prout the theory of merorganisation. Sugar from the cane, or from diabetic urine, are as similar in composition to the sugar of milk, to manna, and to gum-arabic, as are the several varieties of cane-sugar to each other: and Prout is of opinion that some body or bodies, other than oxygen, hydrogen, nitrogen, and carbon, are necessary to the constitution of every substance capable of being digested, and of becoming an integrant of any organic structure; so that the sulphur, phosphorus, iron, and other elements, which at first sight seem to be adventitious ingredients of living bodies, are essential to organisation. He explains the extraordinary differences between organic proximate principles of a very similar composition by the presence, of different kinds and in different quantities, of this small proportion of apparently incidental matters. According to Prout,

these bodies infuse the dissimilarity of properties. Starch is sugar made to differ from it by infinitesimally small quantities of certain merorganic substances, which effect a total alteration of its proximate qualities. Mulder has applied this view to the illustration of the manner in which he conceives those three staple ingredients of the animal tissue, fibrin, gelatin, and albumen, to arise out of protein as from a common root. Dr. Daubeny having, in a memoir on the saline and purgative springs of Britain, read before the Royal Society in 1830, expressed his doubt of the possibility of any medical action being exercised by so insignificant a quantity as one grain of iodine shed through ten gallons of water (the largest proportion he had ever found), felt himself constrained to announce, in 1831, that the considerations above stated 'now induce him to attach more importance to the circumstance of its presence; for it is just as possible *a priori* that this quantity of iodine should infuse new properties into the salts which accompany it, and cause them to act in a different manner upon the system, as that less than a millionth part of potassium should create so entire a change in the relations of a mass of mercury to electricity.' The excellent professor sagaciously and charitably adds, that it is not 'unlikely that the system of the homœopathists in Germany may have grown out of some facts that had been observed with respect to the powerful influence exerted on the system, when even very minute quantities of certain active principles were added to common medicines.' This is a generous suggestion; but it is certainly more remarkable still for its good-natured ignorance of the system to which it professes to relate. Dr. Prout was probably nearer the mark when he hinted, in his Gulstonian lectures, that on some principle of this kind the fatal effects of mias-



mata, diffused through the atmosphere, may yet be interpreted.

Even unorganised nature, then, is an admirable commentary on the narrowness of such partial interpreters as insist upon reducing every manifestation of force to the standard of weight and measure. This, however, is not a physical, but a physiological inquiry. There is that which is a thousandfold more delicate, and more susceptible of every influence, not substituted for, but superadded to, and incorporated with, mere physical sensibility to reaction of every kind. Everything that has been said about material forms, into which the breath of life has not been inspired, must be affirmed, and more urgently affirmed, of the living frame, with its fearful though harmonious complication. The physician and his forces have to deal with a quivering epitome of all the species of susceptibility in creation, one kind reacting on another so as to produce a combination of harmony so highly strung, that the prick of a pin grates upon every fibre, and a cooling odour, in a hot atmosphere, imparts refreshment and delight to every nerve. According to the experiments of Leuchs, if the 10,240th of a grain of tartrate of mercury be diffused through the substance of a sweet-pea, the beautiful germ of a graceful flowering herb, which lies folded up within its horny pericarp, will never come out and be expanded, though you imbed it in the softest mould and solicit it by every art. Before Androcles will a lion, with a paltry thorn in his royal palm, crouch in his rock-built palace, and humbly crave deliverance from the insignificant prickle that has unstrung his fibrous frame. But man is a creature of such exquisite and manifold sensibility to the agency of even physical reagents, that, when the compacted balance of all the parts is disturbed in any one

way, and idiosyncrasy is produced, the feel of velvet produces nausea in some ; an Erasmus cannot so much as taste fish without a fever ; a Cardinal Haüy de Cardonne swoons at the smell of a rose ; a Scaliger falls into convulsions at the sight of cresses ; and a Tycho Brahe trembles in the awful presence of a hare.

Let a dyspeptic German partake of a sausage in that condition of *eremacausis*, as Liebig calls it, in which some of its highly complex particles are in the act of falling down into simpler ones at the touch of external oxygen, and the others are ready to do so in their turn ; and it would not be very difficult to comprehend, with the excessively chemical professor, how such decaying molecules, once introduced without assimilation into the current of the circulation, and carried to the lungs, should rapidly spread the tendency to decay, by slow combustion, among the equally complicated molecules of the blood ; from which it gradually creeps upon the softer solids, and at length falls to gnawing the very ligaments and bones, till the hectic, produced by so universal and devouring an irritation, puts the wan and wasting victim out of pain.

Almost any man in a somewhat asthenic condition of body, passing a fen over-night, and inhaling the overhanging vapours, is seized with a shivering ague, which may engorge his spleen and embitter him for life ; yet the malaria of even the Pontine marshes cannot be extracted, by the most solicitous analysis, from the atmosphere in which it is concealed. All kinds of miasmata have eluded ponderable observation ; yet their effects are, many of them, as sudden, certain, and terrific, as those of the deadliest banes. The morbid ingredient of the smallpox, even when conveyed by inoculation with sensible quantities of matter, must be very trifling ;

but the train of symptoms which ensues is not insignificant. The impregnative principles of scarlatina, typhus, and the plague, the victim of the last of which, it seems, must not be approached within several feet on pain of almost certain infection, are surely potent enough in pathogenesis: but what is the bulk, or the weight, of a sufficient quantity to destroy?

In a word, all the diseases which are known to be produced by the entrance of something foreign into the system, through the natural channels, are introduced by insensible quantities; so insensible, that we cannot say of what, and so penetrating, that there is no excluding them but by avoidance. The glass-mask of Alasco itself, even were it not to break, would not protect the daring experimenter from the torpedo-touch of the invisible, inodorous, and impalpable external cause of cholera morbus, if the internal disposition were not wanting:—the internal disposition; for there are two parties to the production of the anomalous or morbid, as well as the normal or healthy phenomena of life; external agents, and the reacting organism. In connexion with this simple first principle of physiology stands a silly misunderstanding of homœopathy, which the majority of its opponents have palmed upon themselves. It is to be understood that Hahnemann and his followers never either inculcated or supposed, that insensible doses can react so powerfully on the healthy frame as to bring out symptoms. Yet the celebrated Andral tried if he could infect himself with intermittent fever by eating globules impregnated with infinitesimal weights of quinine!

It must not be forgotten that a specific, or specifically exalted, susceptibility must concur with the specific reagent, or degree of common reaction, in order to the

production of the desiderated phenomena. The internal disposition must not be absent any more than the external disponent. There are two ways in which the former, and two in which the latter, may become abnormal, and so be rendered the causes of morbid manifestations of vitality. That is, there are four simple ways in which disease may be educed ; retaining the term 'disease' for the expression of the sum of the abnormal symptoms of life, presented at any given time. The susceptibility to the action of a material reagent may be merely increased or diminished, so that the effect of the latter, naturally pleasant, shall be painful. In ophthalmia, the eye is intolerant of ordinary light ; in otitis, the ear of ordinary sound ; in erysipelas, the skin of the gentlest heat ; in the idiosyncratic case of Caspar Hauser the organ of tact was so sensitive, that the tenderest touch dealt the unfortunate patient a heavy blow ; and so forth. On the other hand, the natural externals of the organism may be merely increased in quantity, or intensified in force ; too much oxygen, and repletion of every kind, cold and heat, being familiar as causes of many kinds of disorder. Then the responsivity of the frame, or any part of it, to the natural reagents without may be altered not only in degree but in kind ; as is the case in the numerous instances of perverted secretions from various organs ; when the tears, for example, instead of being bland, become acrid and corrosive, or when, instead of the mild mucus from the nose, an offensive purulent matter is discharged. Lastly, the externals may be changed, wonted reagents removed, or unaccustomed ones brought to bear upon the organism ; and this embraces the maladies produced by medicines or poisons.

Such are the ultimate efficient elements of disease.

In nature they are generally complicated. For the provocation of maladies by miasmata, there must be specific alteration of susceptibility in the frame to become diseased, as well as the presence, in insensible quantities, of the malarious ingredients among the ordinary constituents of the atmosphere. Now, it is this natural combination of circumstances which contains the principle followed by Hahnemann. He does not expect an insensible dose of medicine to produce symptoms in a healthy organism, but in an organism in which sensibility to the reaction of that medicine is, for the time, unnaturally exalted. Then it is manifest that when the organism is labouring under symptoms the same, or nearly the same, as those which a given drug is known to produce when administered to a healthy subject in large doses, its susceptibility of the effects of that drug is already exalted. Again, it is exactly in this contingency that the homœopathist expects his insensible dose to act sensibly upon his patient. One is ill of intermittent fever, and his sensibility to the action of any body which is calculated to produce intermittent fever, when given in large doses, is anomalously high ; but cinchona is such a body (and any one can try whether it is or not upon himself), and consequently it is in intermittent fever that Hahnemann predicts, that an insensible quantity of cinchona shall tell on the system with effect. The effect he anticipates is not the doubling of the malady, but its counteraction or cure, in conformity with the therapeutical maxim from which he starts. It appears, then, after all, that, if that maxim be true, the administration of small doses is the most natural practice in the world. In fact it is exactly as deducible from the homœopathic theory, as the exhibition of sensible quantities is corollary from the

enantiopathic principle of cure. Doses of ounces and doses of decillionths are equally rational, when viewed in connexion with the respective therapeutical rules, in obedience to which they are severally prescribed ; and the contest is only between those rules of cure themselves ; if indeed they cannot be brought into harmony. It is my decided opinion that there is no inherent discrepancy between either the principles or the practices of the rival schools.

It appears, that on the arena of physiology there exists at present one of those strong manifestations of polarity among the elements of opinion, which occur so frequently on the wider field of the world itself. There are three central ideas in the science. Not one of them has ever been absent. Now one of them has been predominant, and now another ; but they have invariably been all present. There is the material, or mechanico-chemical element, which recognises the actual substances of which the living body is composed. There is, secondly, the purely dynamical point of view, or distinct apprehension of a law of vitality, regulating phenomena indubitably different from those which are chemical and unchemical. And, lastly, there is a synthesis of the two, more or less perfect at different times and in different minds ; and this is the structural principle of physiology. It has reference to the law of development, and studies the *processus e latente*, to use the expressive phraseology of Bacon, by which the aliment of living bodies is woven into suitable structures and convenient forms, in conformity with the law of vitality. The structural physiologist labours, by his dissections, to discover the law of development. The chemist undertakes to trace the material changes which accompany, and are necessary to, development. And the complete physiologist

aims at nothing less than the law to which both of these are subordinate.

The successive so-called reformations in medicine have consisted in the sudden advancement, by influential men, of one or other of these first elements of physiology to an undue prominence, from a position of previous undue neglect. To take one example, Paracelsus dissipated the cloudy speculations concerning the union of soul and body, which were entertained by the degenerated Aristotelians of his day; and founded that rude iatro-chemistry, which is now brought forward in an elaborated form by Liebig and his disciples. Although Gay Lussac and Thenard are the true leaders of the recent movement in organic chemistry, Liebig has stated its connexion with physiology the most boldly of their followers, and may be considered as the representative of a large school of chemical physicians. He is the Coryphæus of the new iatro-chemistry and its eager proselytes. In him the chemical element of physiology is suddenly developed to excess. In Hahnemann and his followers there is the idea of vital dynamics, in direct opposition to, and exclusive of, the iatro-chemical principle. Liebig has arisen to counteract the excessively dynamical character of Hahnemann's conclusions. They are not only opposites; they are polar. They are mutually positive and negative. It is between these extremes that the battle of opinion is fought. There is little scientific charity on either side. Liebig denounces the homœopathists with impetuous contempt. Hahnemannians laugh at his doctrines as gross and mechanical. Yet they are both in possession of most important truths; although there appears to be little prospect of a direct coalition.

In the meantime, there is a class of investigators, deaf

to the clamour of both these great extremes. They concern themselves comparatively little with the merely chemical phenomena of living bodies ; and they contemplate the phenomena of vital dynamics with the eye of delighted curiosity, rather than of determined science. They are the structural physiologists ; men like Müller and Schleiden, Owen and Goodsir. The phytologists and scientific anatomists of Europe look with distrust and dissatisfaction upon the incondite and unskilful attempts of Liebig and his school to construct a chemical physiology. At the same time, they have no consideration for homœopathy. They are not loudly condemnatory, like the chemists, but they will not investigate it. In truth, they are intent upon the law of development, to which they have been consecrated ; and they pursue their admirable researches with devotion and success. If, however, these three great lines of advance are divergent, they must therefore be converging too, and that toward some deeper centre than the present extremity of any of them. Organic chemistry shall certainly become another science altogether. At present it is only the chemistry of exorganic bodies. It never lays hold on an organic body but the life escapes. It works among the mere exuviæ of that higher force, which the true physiologist apprehends, and endeavours to expound. It is the chemistry, not of life, but of death.

On the other hand, the homœopathic physiologist must learn to take more cognisance of the substantial stuff of which the body is composed, and by the coming and going of which it is sustained. His science is too gasiform. He must fix it in the solid bones, the firm flesh, and the liquid blood of living systems. As a speculator, he is in danger of becoming attenuated and mystical. But for the best thing about him, viz., the



fact that he is a successful and eminently practical physician, his theory might have evaporated long ere now. As it is, there is no man of science of the present day stands so much in need of being implored to study other departments profoundly. The apostle of homœopathy should be a very learned man, in order to harmonise the new doctrine, at first sound so discordant, with the old culture and the swelling sciences. This is the task he must perform. His solemn duty is to promulgate his truth, not like a sectarian, but as becomes a catholic member of the universal school of scientific investigation.

## PHYSICAL PURITANISM.

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THERE is no lack of signs of the times in these days. There are signs ethical and religious, signs ecclesiastical and theological, signs political and cosmopolitan, signs literary and æsthetical, signs scientific and industrial, signs social and humane. In fact, it must be freely confessed, that no mortal capacity of vision could possibly take in all the signs of the times, that is to say, with any hope of reading them aright. Even Humboldt, whose eyes have seen and whose hands have handled such multitudes of things, on many seas and in many lands, professes that he is not possessed of a subjective understanding, and has therefore nothing to offer concerning religious ideas, although ready with his vote in almost every scientific question yet under discussion : so that the multifariously accomplished Baron could make little but blur and confusion out of the sign theological, now climbing nearer and nearer the zenith, with all his intellectual optics. Our greatest men are not men after all ; they are only bits of men. The widest and clearest spirit is but a fragment of the all-seeing intellectual sphere. Man is the only true Argus, the only hundred-handed Briareus, able to stretch his cunning hands and

lift his understanding eyes in all directions ; but man will neither edit our views nor write our books for many a century to come, for his fall dashed him into as many fractions of himself as he has eyes and hands ; and we must just content ourselves with such broken reports and partial interpretations of the numerous signs aforesaid, as can be had at the hands of the common men and women of the press, always reserving the right of private judgment.

‘And women’—for though the editorial pronoun, which made somewhat too boastful an appearance near the end of the last paragraph, turns out to be neither of Rhea’s gigantic sons, it is at least somewhat of a Vertumnus in its way, and changes its sex as easily as a chameleon changes its colour. To tell the truth, we are everything by turns and nothing long. The great advantage of this unceasing metamorphosis is to be found in the circumstance that, in this way, we manage to get a peep at almost everything. Thanks to our Protean nature, we find ourselves possessed of a reversionary interest in every legacy of the passing age. Hardly anything escapes us ; we have so many shapes, so many points of view, so many talents, so many professions, so many private advantages, so many eyes open in succession, and so many divided hands to write ! We have never done going to and fro upon the earth, seeking whom we may review ; and we have of late years come upon a new and out-of-the-way sign of the times we live in. It is a very little way above the horizon, being no bigger than a man’s hand ; few gazers have yet noticed it, while fewer have given it the least attention, and none have assigned it a place among the new lights. The sign we mean is Vegetarianism.

It is curious to notice how a quaint inquiry will come again and again upon one in the course of life, and ask passing attention, if not demand more serious consideration. Vegetarianism must have come and gone among these small recurring topics in the experience of many. At school one reads of Cyrus, reared on bread and cresses; at church and at home of Daniel, fed on pulse; and of both as nothing less than heroes in manly beauty, as well as in valour and wisdom. It is not unlikely, indeed, that thrifty mothers were not slow to insist on the fact that Belteshazzar, Shadrach, Meshach, and Abednego, were both bonnier and better than the rest of the Hebrew striplings, who ate the king's portions and drank the king's wines. Once fairly out of leading-strings, and in quest of knowledge on our own account, whether inside or outside of a college, which of us was long in discovering that the Essenes among the Jews, and the Pythagoreans among the Greeks, were vegetarians on system; to say nothing of the Egyptian mystagogues of very ancient times, from whom both of these comparatively recent schools are thought to have taken their cue, more or less directly; and to say still less of the old Brahmins, whose descendants were understood to be thriving on vegetable fare at the date of the last monthly mail? Which of us was not arrested, in the mid career of fast and furious youth, by the perusal of poor Shelley's pleading for the vegetarian diet; and introduced, in a state not very far from conversion, to the mild acquaintance of Dr. Lambe and Mr. Newton, the apologetic twins for a return to Nature, consisting of distilled water for drink, diet-loaves for dinner, and other paradisaic fare *au naturel*? For our own parts, we actually gave the thing a trial for two or

three months in those poetic days. With the help of milk and butter, coffee and tobacco, we showed ourselves to be at once the disciples and the continuators of Pythagoras and all the sages, in so far as total abstinence from flesh and blood could make us so, for that extensive space of time; being, however, free to confess that, though undergoing his rations, we did not understand the numerical ratios of that particular master in philosophy any better than now: the diet did not help us to the doctrine.

In the meantime, the poet and his gentle friends have left a seed behind them, it appears; and vegetarianism claims the possession of a distinct existence as a physiological heresy, and consequent project of reform, among the militant ideas and practices of the present century. Apostle Greaves, as his disciples sometimes called him, was preaching it in certain literary circles some years ago, as a sort of potato-gospel for the salvation of a degenerate race; and Henry Sutton, a young poet of some little mark, is the apostle's apostle to this day. There is also an extant religious sect, with whom a vegetable diet is a condition of church-fellowship; and they call themselves Bible-Christians, in order to illustrate the practice of Bible-humility, as well as to unchurch all the rest of us as altogether carnal and addicted to fleshly lusts. But modern vegetarianism is by no means confined to visionaries and religious exclusives; it spreads among purists of a very different order. Not only æsthetical young men, with their hair divided down the middle, and demi-pique beards upon their chins, but sturdy men of action—men of the people, phrenologists, natural-religionists, general reformers—have here and there begun to take it up. It likewise

has its votaries among the intellectual classes. Within our own limited circle of acquaintance, it counts a physician, an astronomer, an electrician, a painter, a barrister, an independent gentleman addicted to radical reforms, a lady-farmer, and an authoress. It is undoubtedly a growing faction even here. It seems to flourish more openly, however, in the United States of North America. Dr. Alcott and Mr. Sylvester Graham have disseminated the doctrine far and wide. The New England transcendentalists seemed disposed to espouse the cause some years ago; but, leaving that aërial sort of people to their dew-fed dreams, it commands a considerable following among the common money-making populace of those parts, having been backed by the good-will of many medical men there;—and doctors always know what they are about, of course. They do say that Graham-houses are as numerous as temperance-hotels in some parts of the States; and, be that report what it may, it is evident that the vegetable heresy is much more rampant there than with us. Yet a small proportion of our native root-fruit-and-grain-eaters have already formed themselves into a banded society. This fraternity held its first meeting at Ramsgate, in September 1847, under the presidency of Joseph Brotherton, Esq., M.P.; no feather-head of a Parliamentary, but once a horny-handed artisan, always a hard-headed man of the people, and now an industrial chief. It started with 122 mechanics, 110 ladies, 12 professional men, 9 physicians and surgeons, 6 merchants and manufacturers, 3 ministers of religion, 3 farmers, 2 authors, 2 gentlemen by profession, 2 county magistrates, and (will it be believed?) 2 aldermen. One of these innocent members of society had abstained from the flesh of animals (al-

ways excepting accidental grubs, mites toasted and untoasted, and all manner of unavoidable invisibles) for the long space of 40 years; 71 of them had done so for 30 years; 58 for 20 years; 44 for 10; and 64 for 1 year; not to mention other 27 who had abstained for a month. They held their next meeting at Manchester in July 1848; and there is a vegetarian ordinary somewhere in that brawny practical city every day; at least, there was one in '48. By January 1849, the membership of this society amounted to 376; and 76 of them had never used animal food all their lives. They held their last gathering in London, celebrating their progress in some sort of a banquet, and exulting over the extension of their principles. What with these confederated enemies of orthodoxy in diet, and what with those terrible Bible-Christians, and what with the unregistered reformers sprinkled all through society, and what with nobody knows how many thousand sceptics or *considerers*, it is not to be doubted that Smithfield and all butchers, Billingsgate and the whole guild of fishmongers, Gore-house and every present cook (to say nothing of farmers' wives, licensed sportsmen, and regular poulterers), stand in jeopardy of their very existence—as such. In one word, and speaking seriously, it can no longer be concealed that vegetarianism is now an embodied power, be it for good or evil, among the elements of British and American civilisation. It may look fantastical, it may be feeble, but it is certainly alive. If it is but a puny and supernumerary sort of thing, it is also very young; and it cannot be denied that it is able to boast of as ancient and honourable an ancestry as any in the world.

Some writers say this is an age of tools; others, that it is an age of criticism; not a few, that it is the long-

promised age of the rights of man ; just a few, that it is the day of woman ; and a very safe majority assert it to be an age of transition : but nobody can deny that it is pre-eminently the age of physiological reformers. A new sort of puritanism has arisen in our times, and its influence is as extensive as its origin is various. In some of its features it is as ancient as history ; in others, as modern as yesterday ; and in all, not inexpressive of certain of the wants and aspirations of society. It is the puritanism of the body ; and it comes before the world under many names ; but the common purpose of all its manifestations is the healing, cleansing, and restoration of the animal man.

Of this many-headed new puritanism, homœopathy is perhaps the most notable representative ; at least, it certainly has the greatest following of any of the forms which this quaint young spirit of the age has yet assumed, if cultivation of mind and social influence are to be taken into account as well as numbers. Far be it from us to make common cause with homœopathy as a positive medical doctrine, and still farther to lend any decided countenance to the proposition, that the quadrillionth of a grain of *nux vomica* or *sulphur* will open the bowels of a miser when they are shut ; for questions so scientific are not at all competent before this present court. Nor will it be easy to find a properly-constituted board of inquisition for the heresy anywhere else ; inasmuch as the good old school (dating from immemorial time, like the schools of alchemy and astrology, and the black arts in general), make but too short work of the matter, doubtless proceeding in the business upon their favourite principle of *contraria contrariis*, or man to man and no quarter : whereas the innovators, if the inquiry were to be given up to their all too tender mercies, would also settle



it off-hand without the compliment of a doubt, being true to their professional motto, *similia similibus*, or birds of a feather fly away together. It is to be supposed, however, that the public will eventually answer the question for itself; not by scientific criticism indeed, but by that patient and generous common sense, on the ground of long and varied experience, in the name of which an illustrious mind has recorded the belief, that 'the great heart of the world is just.' But the homœopathic movement has other aspects and bearings than the medical proper. It is sanitary, as well as sanatory, in its professions; although it is principally in the latter character that it comes forward, with globules in its hands, and promises in its mouth. The worst that its conscientious enemies can say against it, indeed, consists in the assertion, that its manner of treating diseases is a leaving of the patient to the restorative virtues of nature. In the first instance, then, this wide-spread homœopathy is a crusade against rhubarb, senna, prussic acid, opium, antimony, mercury, and all the abominations of the drug-shop. It is a vow of total abstinence from all open and confessed poisons, to begin with; but it does not stop there. It seems that it forbids its patients the secret and hypocritical poisons in daily use among the self-indulgent multitude. The consistent homœopathist has to abstain, when under treatment, from spirits, wines, beers, coffees, teas, tobaccos, and spices; and, although homœopathy might be considered as mainly a testimony against the consumption of poisonous stuffs during sickness and convalescence, it is likewise clear that the whole weight of its vast influence is in favour of clean living. Mithridates accustomed himself so heartily to the eating and drinking of poisons, it is commonly reported, that it became his second nature to feed upon them; and he

must have thriven on the diet in some degree, for he has managed to cover the earth with his disciples ; John Bull and his brother Jonathan being not a jot behind their neighbours in the practices of that great exemplar. But homœopathy wishes to put an end to much, if not to the whole, of that Mithridates existence ; and, as it is also prone to enter into alliance with the water-cure, it is well worthy of the foremost rank and consideration amongst the manifest agencies of the new puritanism of these days.

It were unjust, perhaps, to Hahnemann and his disciples, not to inform the ignorant that these would-be medical reformers are not content with enforcing total abstinence from poisonous quantities of all such substances as are at enmity with the healthy body. They believe and profess that these very poisons may be administered to the sick (in accordance with a rule of choice long well known in medicine, and at length generalised by the German heresiarch), but in quantities so transcendently minute that they cannot exert their poisonous action on the system. The thousandth, the billionth, the decillionth of a grain are their common doses, quantities invisible, not to be weighed, inconceivable, and almost indemonstrable. Both the homœopaths and their rivals declare that such quantities, even of arsenic or strychnia, are incapable of poisoning or of injuring in any degree the most moribund of mortals ; and we believe them : homœopathy, poor thing ! is absolutely safe. But the homœopaths, furthermore, assert that such impalpable quantities do heal all manner of diseases, when the poison or medicine is rightly chosen for the disease ; and those of the opposite faction deny the proposition as something more than monstrous, if not little short of blasphemy. The former appeal to experience,

often the most fallacious of school-dames ; the latter to common sense, the ever-venerable conservative of science. All that we can say is this : If homœopathy ever make out the transcendental proposition, that well-chosen infinitesimal quantities of a medicine can cure a raging or else an obstinate disease, that the decillionth of a grain is capable of potent and extensive effects upon the morbid animal frame, it will astonish and bless all posterity. It is not mathematically demonstrable that this is impossible, and common sense is but a dotard about the limits of the possible ; wherefore, pending the slow but sure decision of time, the umpire of the sciences, homœopathy must be content to take rank here under its negative quality, as part of that new puritanism the rise and progress of which we are now reporting.

Mesmerism, animal-magnetism, hypnotism, odylicism, electro-biology, or anthropopathy, may also be considered as one of the puritanical movements of the century, although it presents itself with much more positive and peculiar claims. As it is a sort of half-way house towards homœopathy, so does it wear a negative as well as an affirmative aspect, just like that redoubtable new power ; and it is not without its importance, even in such a humble point of view. We do not refer to anything that is doctrinal or doubtful in mesmerism at present, but only to what is practical and indubitable. Passing by the Paracelsian fifth essence of things, and Van Helmont's cosmical spirit, and Mesmer's animal-magnetic fluid, and Reichenbach's odylic dynamide, and not stopping to inquire into the awful questions of thought-reading, will-obeying, and clear-seeing, we think only of its medical professions and practices. It is now matter of universal acknowledgment, as it appears even in the writings of the orthodox, that certain doings, call them mesmeric prac-

tices, are capable of producing certain morbid states in certain persons or nervous systems, no matter what these states are, and still less matter (in this discussion) what may or may not be the indubitable psychological phenomena sometimes observed in such morbid states of the human nervous system. Enough for us that this power of producing morbid states is precisely analogous to the power possessed by poisons of producing such states, and that it may, therefore, be employed as a medicine. Inasmuch as its action is not all but universal, as that of the regular medicines is, and also because it requires a specific susceptibility or predisposition in the patient, as the homœopathic medicaments profess to do, it might be represented as an intermediate agent. In reality it is sometimes used allopathically, or with a general intention—the intention, for example, of giving deep repose, so as to suffer the remedial force of nature to exert itself; sometimes homœopathically or with a specific intention, namely, the intention of curing such symptoms as it is capable of calling forth; but its ordinary practitioners seem to employ it right and left, without any systematic or theoretical purpose whatever. Cures follow their manipulations, and they are content. Whether the sequence, in these cases, be one of causation or coincidence, is quite another matter; and this is not the place to inquire so curiously. Suffice it, that the steady publication of the *Zoist*, the numerous mesmeric works which yearly flow from the press, the columns of every newspaper in the country, and the conversation of almost every social circle, can hardly have failed to satisfy the thoughtful observer that mesmeric treatment has acquired some importance in this country. It is a little employed by the regular school of medicine; it is much more in use among the homœopaths; and it has a

separate party of its own ; so that it is proper to say, it comes in aid of homœopathy to the superseding of poisonous drugs ; and, in fine, mesmeric medical practice may fairly be chronicled as an ancillary member of our new puritanism, whatsoever else it may or may not one day prove itself to be.

Next to mesmerism in this methodical catalogue, and next to homœopathy in social importance, as an agent of the bodily purification to which the age is addicting itself, comes the water-cure, commonly called hydropathy, in spite of Greek and grammar. Sympathy denotes a feeling with, antipathy a feeling against one ; allopathy cures a disease by setting up other feelings, symptoms, or sufferings than the patient is enduring from the disease, and homœopathy by instituting similar sufferings ; so that hydropathy may fairly be supposed to have to do with only watery sufferings,—a conjecture not seldom advanced, in truth, by its enemies. But the water-cure is a very genuine thing in its own plain way, and particularly precious in the present connexion, for Priessnitz was as unmistakably a man of the epoch as either Mesmer or Hahnemann, though the peasant-physician has died at the early age of fifty-two, all his tubs and bandages notwithstanding.

Some four-fifths of the weight of the human body is nothing but water. The blood is just a solution of the body in a vast excess of water ; as saliva, mucus, milk, gall, urine, sweat, and tears are the local and partial infusions effected by that liquid. All the soft solid parts of the frame may be considered as ever temporary precipitates or crystallisations (to use the word but loosely) from the blood, that mother-liquor of the whole body ; always being precipitated or suffered to become solid, and always being re-dissolved, the forms remaining, but

the matter never the same for more than a moment ; so that the flesh is only a vanishing solid, as fluent as the blood itself. It has also to be observed that every part of the body, melting again into the river of life continually as it does, is also kept perpetually drenched in blood by means of the blood-vessels, and more than nine-tenths of that wonderful current is pure water. Water plays as great a part, indeed, in the economy of that little world, the body of man, as it still more evidently does in the phenomenal life of the world at large. Three-fourths of the surface of the earth is ocean ; the dry ground is dotted with lakes, its mountain crests are covered with snow and ice, its surface is irrigated by rivers and streams, its edges are eaten by the sea ; and aqueous vapour is unceasingly ascending from the ocean and inland surfaces through the yielding air, only to descend in portions and at intervals in dews and rains, hails and snows. Water is not only the basis of the juices of all the plants and animals in the world ; it is the very blood of nature, as is well known to all the terrestrial sciences ; and old Thales, the earliest of European speculators, pronounced it the liquid-mother of the universe. In the later systems of the Greeks, indeed, it was reduced to the inferior dignity of being only one of the four parental natures, fire, air, earth, and water ; but water was the highest—*ὕδωρ μὲν ἄριστον*—in rank.

Hippocrates appears to have made much of this universal fluid ; and that not only in the humoral doctrine, which he brought into vogue if he did not invent it, and in which moist and dry were more than the co-equals of hot and cold ; but also in the way of its outward application. The cold bath was a prominent institute of his practice of physic ; and Galen seems to have been not far behind him in its administration. Both of these ancients,

in truth, do certainly commend the bath much more highly than seems to be remembered by the regular physicians of modern times. From time to time, however, it has been the cue of more recent members of the faculty to resume the proclamation of the virtues of cold spring-water. Perhaps the most notable of these baptismal enthusiasts in this country, was Sir John Floyer of Litchfield, a worthy who likewise signalised himself by being one of the first, if not actually the very first, to count arterial pulses by the timepiece. That doughty knight and doctor of medicine published a graphic and characteristic book under the Hippocratic title of *Psychrolusia*, close upon the end of the seventeenth century, and it had come to a fifth edition by 1722. It was a queer history of cold bathing in disease and as a preventive, both in ancient and what was then the most modern practice,—in two parts. The first portion of this comical, and yet most earnest and practical treatise on the water-cure was from the riotous pen of Sir John himself ; the second was written by his tame and respectable friend Dr. Baynard ; and the twin was duly dedicated to the Right Worshipful the College of Physicians. Full of that miscellaneous book-learning, from Galen to Ælian, and from St. Augustin to Polydore Virgil, which the scholarly but seldom inductive doctors of his day delighted in, Floyer brings forward a multitude of cases treated by immersion from the crypts and hidden places of medical literature. He also reports his own extensive experience, both in private and at certain baths he had got up, with an air of bluff veracity ; so does Baynard his, but with not nearly so heroic a twang of the bow ; and the joint production of these two allies reads not unlike a hydropathic dissertation of the present year of grace. The chief difference between the *Psychrolusia* of 1700, and any of the *Hydrotherapeias* of 1851,

consists in the presence of quaint classical and mediæval learning, the absence of the varied water-curing resources invented by Priessnitz, and the tincture of the whole medley with a spirit of frankness, jollity, and even indelicacy, now discarded in that kind of authorship. Were it but transformed into the language and manner of to-day, it might pass for the work of Professor Oertel or some of his followers. Nor would Dr. Gully or Mr. East do amiss, if he were to put forth a new edition of this savoury olio of Greek, Latin, and English ; of theology, philosophy, science, and nonsense ; of classical, vernacular, and slang ; of prose, poetry, and doggrel,—with all its imperfections on its head.

Notwithstanding the cold affusion in fever, as advocated by Currie, the friend and biographer of Burns, and in spite of other bold proposals, by a doctor here and there, for this disease and for that, the last century was almost wholly addicted, in medicine, to the worship of drugs and pedantries. The current age has brought us, among many other real gifts and mock ones, a more lively and expansive reaction in favour of the water discipline than was ever seen before. Perhaps none of the puristical movements of the day is more emphatic and important than the water-cure, more particularly in its indirect effects upon society. It has two great heads or hierophants : Priessnitz, the sagacious Austrian peasant already named with honour ; and Oertel, a learned professor. The former stands for it as a practice ; the latter represents it as a theory : but hard-headed old Priessnitz was its true originator and classical symbol. *Æsculapius*, the scientific or expository demigod of physic, was only the natural son of *Apollo*, the creative god of music and healing ; and such may be said to be the relation subsisting between Professor Oertel and the



village patriarch of Gräfenberg. It is much easier to talk about a thing than to make it, to throw all sorts of new light upon an invention than to invent it, and to criticise than to create—were it only a pair of forceps or a short and easy method of swallowing castor-oil. When a man, in addition to an inventive talent, possesses the faith or manliness to carry over his discovery into plain and every-day practice, athwart all obstacles, he is certainly something of a hero; and such, in his degree, was the venerable Aquarius of Silesia. We speak of this worthy personage as old, patriarchal and venerable, not only because these epithets would be applicable even to a man of five-and-thirty, if the founder of an institute or the creator of an epoch, but because poor Priessnitz really was an aged figure to look at, although no older in years than many a London dandy. This early appearance of antiquity, in fact, is commonly to be observed among peasants, accustomed to work with their bended bodies, fed on dry fare, exposed to all the rusting processes of the air; now frozen, now soaked, now melted; and also not without the vices, while altogether ignorant of the arts of life, such as shaving so as to suit the exigencies of the face, pomatums, cold creams, cosmetics, wigs, eyebrows, patent teeth, plumpers for the cheeks, dentifrices, oils, tongue-scrapers, flesh-brushes, paints, scents, male and female stays, padded dresses, calves, springy soles, and elastic carpets. If our veritable but ever-memorable ‘hewer of wood and drawer of water,’ therefore, had been a West-End physician instead of an irregular country-doctor, he would always have been sleek and middle-aged, even if he had survived the eighteen-hundreds.

There is no concealing the fact that the number of patients or people, from every country and of every class,

that have been treated or disciplined by Priessnitz in the course of his comparatively short career, is enormous. His institution, or rather his neighbourhood, for the whole countryside was his institution in a manner, seems to have been singularly well organised. There would be some thousand patients at a time in and about his rustic college of health. He is said to have made £80,000. Apart, then, from the virtues of water in a multitude of human ailments, it is no wonder that hydropathic hospitals have sprung up like mushrooms all over Europe, and especially in England. They are very numerous now, as everybody knows; and there is no counting their unfortunate inmates. The majority of those in this country, if not all, are superintended by regular medicals, the licentiates and graduates of British colleges. We have encountered medical men among their patient inmates. Some otherwise orthodox physicians have not been slow, of late years, to recommend the treatment in certain chronic, or else hopeless cases; but it is not to be thought that such a thing will ever happen again, now that the Scotch colleges and the English Provincial Association have told the profession how orthodoxy expects every man to do his duty; especially when that truly learned profession remembers that, through the old eyes of orthodoxy, four thousand years look down upon it.

In spite, however, of the clamour and contempt of the wise, the water-cure has likewise managed to embody itself in a literature of its own. Not to mention the technical authorship on the subject, since it might be charged with self-interest quite as justly as medical literature in general, it is curious to take notice that men of war like Captain Claridge, artists like Mr. Lane, men of letters like Bulwer, classical scholars like Professor

Blackie, men of science like Professor Clarke the chemist, and all other sorts of laymen, have not disdained to lend the water-doctors a lift into public acknowledgment, if not into positive public favour. The fact is, that the very thought of the water-cure is wholesome, pure, exhilarating, bracing, and altogether attractive to some minds. Then there is no plan of treatment on earth, from hydropathy down to kinesipathy, and from homœopathy up again to allopathy or orthodox medicine, which cannot boast its cures or seeming cures ; and these are just as good as those in the opinion of a highly-enlightened public, while each kind of doctor stands by his own kind of cases as a matter of course. It seems to strike only a very few people that all the methods may be good for something, and almost everybody, therefore, runs away with one of them. Coleridge compared the one-sided critic to the anableps or flounder : both his eyes are on the same side of his head ; when he has seen one side of a thing, he has to turn his whole body round before he can see the other ; and he has usually forgotten the first view of the matter before he has got to the second, the second before he has reached the third, and so forth for ever.

How many obvious virtues reside in pure water, after all ! The very look of it is healthy. Its touch is appeasing. It cleanses the surface ; softening the scurf-skin, and opening the pores, were it only by washing away the saline and organic residue of the perspirations. It saves the thirsty, revives the weary, and composes the hungry a little longer. It helps digestion, and promotes absorption in the adult and the aged. It is necessary for the comfort of old and young in sultry weather, and in fever—that sultry weather of the body itself. Take it sitting in a cool room, and you will find it operate as

a diuretic ; lying under a load of Sir John Blanket's \* woollen sheets, and you will sweat ; follow it with steady but not violent exercise, and you will save an ounce of senna, rhubarb, or some purgative drug. Its liquid and all-embracing fold gives it great advantages as a means of modifying the temperature either of the surface or of the whole body of the sickly. In a word, it is not at all difficult for the special pleader or advocate of the water-cure to show how his favourite element may be so applied, internally or externally, locally or generally, cold or hot, briefly or long, in rest or in motion, this way, that way, and the other way, as to play the part of a tonic, a stimulant, a sedative, a demulcent, a diuretic, a diaphoretic, a counter-irritant, a solvent, a diluent, a laxative, an antispasmodic, or an anything. All this may or may not be true, and, being true, may or may not be manageable with safety to the cure of disease ; but our sole concern is with the fact that such things are loudly asserted everywhere, and that such things are extensively believed and acted on. Hydro-pathy, in short, is another influential member of the great anti-poison league of the age ; and, like homœopathy, the principal organ of the movement, it lends all its countenance to the general practice of a purer diet, both in meat and drink ; while the two systems are not ashamed to play into each other's hands. The homœopaths regard the water-discipline as an important and sometimes indispensable preparation for treatment in cases of long standing, especially when their patients have been carefully drugged by the faculty beforehand ; and several of the water-doctors are also homœopaths ; which argues a rooted and far-spreading conspiracy against orthodoxy, if not against the public health. The

\* Sir John Blanket was the name of the inventor.

degree to which all classes, indeed, must already have given up the use of medicinal poisons during sickness and convalescence is certainly a very striking feature of that upstart bodily puritanism, whose avatar we are now celebrating ; if it be also a melancholy fact, when considered in a medical point of view.

But homœopathy and the water-cure resemble one another in still another respect. They are both of them regimenal as well as medical, disposing their followers to a general purity of life. Their united influence is, on the whole, against alcohol, tobacco, tea and coffee, and a highly-seasoned diet, to say nothing of opium and bhang. As for the water-cure in particular, it has invariably introduced its patients to the practice of daily ablutions on their return to the world. It has even accustomed that world itself to the idea, and to the extensive use of the bath. Efforts are made to place hot baths, cold baths, shower baths, and steam baths within everybody's reach. The number of British citizens, who sponge or otherwise water themselves from top to toe two several times every day in the year, is now very considerable ; the number who do as much once a day is still greater ; and the cleansers of once a week will soon be little short of co-extensive with the population. In a word, the hydropathic movement has effected a revolution in the personal cleanliness of the nations. Thanks to Priessnitz, the skin of Christendom is in the fair way to being washed from the crown of the head to the sole of the foot. And how much all this will diminish the amount of disease, increase the sum of enjoyment, make those who die of sheer old age more numerous, improve the general habit of body, and conduce to virtue ; or how far it will even tend towards these results, is a question beyond our province, quite as much as is the truth

of homoeopathy or mesmerism. In reality, it is a question of the future ; and the future will settle both it and its neighbours, while we record the own things are taking in the meantime.

But we have not room to expatiate on all the particulars of this great new puritanism. Who has not observed how effectively the phrenologists have been inculcating the first principles of physiology, and the art of life which depends on that science, into the public mind ? Have not those two public-spirited brothers, George and Andrew Combe, made the reading portion of this whole nation familiar with the idea of the absolute dependence of health on obedience to the organic laws ? In consequence of the generous labours of these and other benefactors of the same class, how differently do we deal by our infants, how much more do we attend to the ventilation of our dwellings, how much more considerate are we in dietetics and regimen, how much more sedulous in the taking of air and exercise, how much more carefully do we avoid intemperance and irregularity of every kind ! Reading and knowledge, indeed, are one thing, and practice is another ; but these our national teachers have at least unburdened their minds and hearts to us, their consciences being thereby set free ; and there is no doubt but the total effect of their exertions has actually been in favour of the physiological reformation of the lieges. Many a prudent, cleanly, temperate, regular and quiet liver can, doubtless, trace all the rewards and immunities of his obedient life to the perusal, in early or even in later life, of the popular physiologists of the last thirty years.

Nor should it be forgotten that Robert Owen and his disciples have long been working in the same direction ; if with less knowledge, with more zeal ; and if not in

such influential regions, at least among greater numbers. It cannot be denied, indeed, that the very atheism of the times, among the illuminated artisans of our great cities, is all in favour of the bodily virtues now under discussion. Cleanliness and temperance are the very religion of the materialist, and should be the complement of religion for all. By the way, the Tractarian movement cannot have been without its bearings upon these points of practice; inasmuch as it has striven to bring back the days of Lenten entertainment, and a score of small asceticisms. The very increase of Romanism within our borders keeps time with the new puritanism, for your consistent Catholic must certainly be an example of occasional abstinence, if not of habitual frugality; and a forty-days' fast every year cannot be without its considerable results on the system.

But if Phrenology, Materialism, Socialism, Tractarianism, and old Catholicism trying to renew its youth, all deserve a word of notice as incidental members of the puritanism of the century, what shall be said of Teetotalism? Does not Father Mathew excel all these reformers, in extent of field, if not in quality of work? So vast, indeed, is the arena of the temperance league, so incessant and unwearied are its missionaries, so devoted its thousands on thousands of adherents, and so numerous its hearty well-wishers, that it might almost be considered the prime mover of the revolution. Happily for us, it is unnecessary to prove its existence and its growth; and it were surely a work of supererogation to demonstrate its uncontested influence, for unmeasured good, if also for some little evil. Its books, tracts, sermons, lectures, meetings, processions, and vast gatherings have already rendered it ubiquitous; and everybody knows what lamentable need there was, and is, and long

will be, for its uttermost exertions. We are a nation of drinkers ; it is confidently averred that every seventy-fourth man is a drunkard by habit and repute : and it is a blessed thing to witness so loud and reiterated a protest against both the vice and the habit, even if it be more honest and effective in the matter, than altogether wise in the manner of it. One might almost wish (while holding one's-self aloof, however, as becomes the critic) to see the same principle and the same inexorable spirit project a solemn league and covenant against tobacco ; but, alas ! that would speedily bring a similar condemnation on those dear domestic drugs, tea and coffee ; and who could bear such an awful ultimatum of virtue ? It is dreadful to contemplate society so denuded ; without its sparkling beers, its cunning spirits, its glancing wines, its comfortable coffees, its exhilarating teas, and its still more passionate tobaccos ! Nay, without its beef and mutton, its venison and game, its fish and fowl, its lobster and all its fleshpots, its roasts, boils, stews, broils, fries, and even its unspeakable braises :—for has it not been shown, preliminarily to this long digression about all the new-fangled purisms of the age, that there is also such a thing as vegetarianism in the country, willing to carry us to ideal heights of purity, if it only could ?

What verdict soever science may pronounce on all these things in the long-run, we are clearly of opinion that not only the popular physiologies of the day, but also the other and more questionable causes adduced, from homœopathy to teetotalism inclusive, are doing a world of good in their own way ; as criticisms, if not as substantive realities ; in the right direction, if also extreme ; and with honesty of intent, though sometimes with fanaticism. Let not the homœopath then, nor the



mesmerist, nor the hydropathist, nor the phrenologist, nor the sanitarian, whether philanthropic or socialistic, nor the teetotaler, nor yet the vegetarian, take it amiss that his institute is classified here as part and parcel of that various but unanimous organisation, whose mission is the redemption of the national constitution of body from the innumerable ills entailed by a long indulgence in the use of poisonous and excessive pleasures. It is something to be so much, even if it be no more ; and none of these adventurers for the general benefit will be offended at being esteemed as at least of that degree of worth, if he remember how unfailing an accompaniment of the decline of empires is the depreciation of the national habit of body. Rickets, abdominal decline, scrofula, consumption, gout, drunkenness, idiocy, and madness, are but a sample of the ills that spring from this fateful box of Pandora, when opened ever so little by the alternate hand of indulgence and of want ; and it is a mercy that now, for the first time in history, there has arisen a vigorous, many-handed, and almost universal reaction against the final catastrophe. As it is perhaps just in time for that great contest with European tyranny during the remainder of the century, which is apparently to be the part of England and America, we might not be disposed to inquire too curiously into the several dogmas of the new puritanism, were it not for fear that they may be supplanting things worthy of perpetuation, even while they are ministering to the unquestionable benefit of a purer physical life throughout the nation. In the actual circumstances of the case, then, it is incumbent on the competent to search the principles of these new and philanthropic confederacies to the bottom. For our own part, we wish to say something concerning vegetarianism, not at all by way

of pretending to settle the question, but in order to fence the inquiry from certain inadmissible methods ; and our object will be attained if the quick resentment of its opponents be in any degree abated, and the hasty pace of its advocates somewhat slackened, so as to bring both parties into a more scientific frame of mind for the study of the subject.

The vegetarians of these times attempt to ground their doctrine on tradition, science, and experience. They contend that the flesh of animals was evidently not intended for the food of man in Eden ; that the traditions of all the great nations of antiquity point back with emphasis to some golden age of innocence and apples ; that even during that silvern age which followed the expulsion, mankind preferred acorns to bacon, and managed to live nine hundred years apiece upon their bloodless diet ; that their betaking themselves to butchery was actually coincident (if nothing more) with the corruption of their ways before the Lord, and with the declension to the age of brass ; and that it was not till after the purgation of the world by means of the flood, that God gave us formal permission to take every moving thing that liveth for meat : but all these considerations transcend the reach of scientific criticism, and therefore the less said about them the better. To tell the truth, it is only a small number of the modern Anglo-Saxon Pythagoreans that attach any importance to the proof drawn from the garden of Eden and the Deluge : and it probably sits very loosely on all of them, even on such as are willing to catch at every available plea for their peculiarity ; always excepting the Bible-Christians aforesaid.

The secular or rational vegetarians appeal to the anatomy of man, a book of Genesis which is much more

to the purpose in the present instance. It is matter of scientific notoriety that the jaws, teeth, stomach, bowels, and the whole eating and digesting apparatus of man are just intermediate between those of the carnivorous and the herbivorous or grass-eating mammals, to state the case somewhat broadly and without detail. The ordinary and orthodox explanation of this circumstance is rather comical, for it is commonly inferred that man was hereby clearly intended to be omnivorous: he is not in possession of a proper organism for either flesh or grass, and therefore he is in possession of a proper one for both grass and flesh; he cannot eat flesh like a lion, nor grass like a bull, nor fowl like a fox, nor nuts like a squirrel, nor fish like a whale, nor green leaves like an elephant, and therefore he is the very creature to devour a mixture of the whole hypothec of edibles! The vegetarians put quite another interpretation on the fact. They argue that, since the feeding machinery of man is midway between that of the flesh and the herb eating animals of the same order, his food ought to be midway between flesh and herbs; and they further assert that a diet of roots, fruits, and seeds is precisely such an intermediate fodder as is wanted. This syllogism is certainly more logical than the sapient conclusion of the omnivorous anatomist; but its practical inference or corollary is not a whit more compulsory than his.

Both of the arguments omit one most important circumstance, and that is no less than the patent and unexceptionable fact, that man, unlike all his good cousins of the kingdom, is a cooking animal, and could no more subsist with advantage on a universal raw mash of organic nature, than on undressed potatoes and barley. Man is a tiller of the ground and a cook. Were he not the former, vegetarianism would be but a ticklish

problem ; were he not the latter, few people would ever touch flesh, for even the Abyssinian prepares his fresh cut after a fashion ; and had he not been both from time immemorial, there would have been neither doubt nor question concerning his dietary for many a century to come. As it is, it might well be maintained by a third party, that properly-cooked beef, turbot, and goose, wheat, potatoes, and baking-apples, are capable of yielding combinations (such as beef and potatoes, turbot and bread, goose and apple-sauce) which are precisely intermediate between quivering flesh and the green grass of the fields. The advocate for a culinary diet of flesh and vegetables might go still farther in this line of argument, for man is an instrument-maker as well as a tiller and a cook ; and, in consideration of his knives and forks, or even his cunning pair of hands, it may be averred that what his anatomy wants, is not the power of catching, killing, cutting up, chewing, and assimilating his fellow-animals, but actually a manifold stomach and long-enough intestines to make away with such foreign natures as grasses and tree-leaves, pumpkins and cocoa-nuts, turnips and mangold-wurzel. He is not a *carnivorum* curtailed of some of its flesh-consuming energy and mechanism, but rather a *herbivorum* too succinct and compacted to live on green meat : although, to be plain with both sorts of mammal, he is neither the one nor the other ; but simply and solely himself, an honest culinary eater, altogether of his own kind. The fact of cookery is a third element in the question, and puts an end to all anatomical analogies and arguments without inquiry.

But the modern Brahmins of England and America are not content with anatomy and arguments. They claim the manifest fact, that all the tissues and struc-

tures of a highly-organised animal, such as the ox or the horse, are grown and sustained on what they should regard as a very poor vegetarian diet ; but it must be evident to every spectator of the economy of nature in regard to such creatures, when not under the domestic care of man the agriculturist, and even when in his keeping, so long as he is a mere pasturer, that their whole existence is made up of feeding, sleep, and propagation. How could a bullock, living on herbage and chewing the cud, do a single stroke of work ? It is, indeed, quite true, that those and other herbivorous animals can be changed into beasts of burden, when made to nourish themselves on the copious cut grass and hay, the oats, beans, maize, and turnips of the agriculturists ; so that it cannot be denied that mere animal health, strength, and labour can be produced without flesh, and also be it added, without cookery, even if the case be thereby made to prove too much for the vegetarian. Yet it must be apparent that, if the ' return to nature ' be the order of the day, the principal function of the herb-croppers is the slow and incessant conversion of vegetable substances into flesh and blood,—second always to the function of sheer existence for the sake of beauty and pleasure. Liebig seems to be of opinion that this is a pretty clear hint, if not a chemical proof, that they are intended for the food of man, as if they were destined to save the lord of creation the trouble of the first transformation. There are many things against this superficial view of the matter, it must be owned. In the first place, mankind really do not subsist upon the flesh of herbivorous animals ; two-thirds of the race never touch it ; and only the most insignificant and eccentrically-situated moiety live on it exclusively. Even an Englishman cannot get on without wheat, barley,

hops, and sundry other vegetable stuffs. Moreover, the only creatures which do regularly and properly feed upon animals, are the beasts and birds of prey, and it has yet to be discovered that tigers and hawks put the spare time, which accrues to them from the practice, to any nobler uses than are pursued by the deer or the dove, if one excepts the owl, that bird of Minerva, which poets (not being chemists and naturalists) have always represented as a meditative soul, that does its eating quickly in the dark and has done. Saving that sacred fowl, in fact, there is no doubt but that the carnivorous races find feeding and digesting as engrossing and ceaseless an affair as their neighbours. It is a pretty enough theory, perhaps, to say that plants change mineral into vegetable matter for the use of the herbivorous animal races, and that these convert the vegetables into flesh for the nobler ranks of the animal kingdom, with man at their head as representative and king; but the ascents of Nature are seldom so mechanical and regular as the steps of an intellectual stair. Her final causes and transitions proceed upon some plan that is infinitely more cunning, probably more moral, and certainly more beautiful. On the whole, then, the entire animal kingdom is dumb upon the subject of man's food. Not Æsop nor Fontaine could gain a single vote in favour of either the vegetarian or the Patagonian; so that their silence might almost be taken, by an elective fiction, for a sign of adhesion to the cause of cookery and a mixed diet.

But our vegetarians conceive that they have a much stronger case, when they remember and assert that the great majority of the human race itself have always been vegetarians, whether they would or no; and certainly, if the name were stretched a little so as to include those vast populations which have subsisted almost

(though not quite) entirely on a vegetarian commons, the majority is as preposterous as that of the ayes for the President of the late Republic in France. They lay a world of stress on the beauty and liveliness of the potato-eating Irish in their better days, the solidity and intelligence of the porridge-fed Scotch, the size and endurance of the Russians with their black bread and garlic, the peasantries of almost all Europe, in short; the fine figures of the abstemious Persians, and the strength of professed individual vegetarians, to say nothing of the Spartan heroes and the corn-grinding cohorts of Rome in her more warlike times. They cite old Parrs by the dozen, and show that they were or are all vegetarians, or something nearly as good; also summoning the celebrated Louis Cornaro and George Herbert, a reformed fast liver and a sweet poet, to give in their evidence in favour of a very small diet. The Italian nobleman called a halt to his exhausted forces at forty years of age, reduced himself to twelve weighed ounces of food and fourteen of country-wine in a day, and survived in health and spirits till upwards of ninety, mounting his horse without help, and writing a much-edited tractate on abstemious living. The young Churchman and poet did the experience of the old count into pure and temperate English for the use of the faithful, and cut short or else prolonged his little span of life by fasts and frugality, perhaps omitting to observe that the rubric is careful to ordain and appoint feasts and high feasts in their season. Now we are ready to admit that vegetarian writers, especially the author of *Fruits* and *Farinacea*, have triumphantly proved that physical horse-like strength is not only compatible with, but also favoured by, a well-chosen diet from the vegetable kingdom; and likewise that such a table is conducive to length of days.

But muscular strength, even when erected on the basis of a healthy vegetative life in the constitution, is not the whole of a man's desirable qualities, nor yet an eminent part of them. Little value can be assigned, therefore, to the instances of the lower classes of most countries being a kind of compulsory vegetarians, and yet surviving in vigour and a species of animal beauty ; inasmuch as mere muscularity is not the sum-total of human sanity, and surely the complete state of body and mind of these vast classes is not nearer the ideal of humanity, in all directions, than that of their flesh-eating superiors in the social scale. In a physiological sense, it is the nervous system that is the man ; and assuredly, if the motory and even some of the sensory nerves of those happy peasantries, all the world over, be better developed, their brains and the more human elements of their cerebro-spinal axes are smaller than those of their unfortunate betters. One might almost aver, on the contrary, that the muscular labourers of the world draw nearer to the very nature and cerebral conformation of the domesticated horse, the more they approximate to his diet and other habits of life. It is quite possible, however, if not very probable, that it is the habits and not the diet which are to blame for such a sad and general effect ; and all that can be fairly argued from it is the proposition, that the very extensive case of vegetarianism now under question really proves nothing for the cause. Whereas any real or supposed tendency of that mode of feeding to produce long livers, when not hindered by excessive toil, must not be allowed to weigh very much ; for mere old age is but a questionable sort of good thing, if attained at the expense of life-long energy : and there is a worthy proverb that it is better to wear out than to rust out, which will never be out of fashion with the



virtuous. Shakspeare was more than twice as long-lived, when he died at fifty-two, as poor old Parr at a hundred-and-four. Other things being equal, long life is an unspeakable blessing ; but the classical vegetarian examples do not seem to be much to the point. Original constitution, temperament, conformation, the amount of depressing passions and emotions suffered, the quantity of exhilarating and restorative experiences, the diseases undergone, the general habits of life in respect of air, exercise, drink, food, and local climate, and fifty particulars of circumstance, have all so much to do with the result, that it must always be exceedingly difficult to trace longevity to this or to that in individual instances : and it should not be forgotten that an existence much prolonged beyond the standard, ancient as the Psalmist, of threescore years and ten, can hardly be counted in the proper order of things. Cold and dry old creatures of 120 or 150 years of age are scarcely natural. Until the vegetarian authorities can bring forward a greater number of hale and hearty people of eighty, in otherwise similar circumstances of life, under their system, than could be adduced from among the adherents of the common mixed diet of the world, their argument halts. Properly speaking, they should be able to cite not only a great, but a much greater number of such unobjectionable examples ; for it is certain that, for the most part, it is only people of a somewhat cool and slow disposition that will betake themselves to their bill of fare in the present state of society, and these are already ‘ prefigured unto a long duration,’ to borrow an apt expression from the author of ‘ Vulgar Errors.’ At the same time, the researches of our special pleaders have copiously illustrated the wholesome and prolonging qualities of even some rigour of temperance in meats and drinks, thereby

coming in aid of the faculty, who have seldom been slow to tell, if not also to show the world as much ; so that this part of the plea for the herbivorous ends in a commonplace.

In opposition to these strictures on their strong men and old Parrs, and men very much above par in both strength and age, a well-read member of the Manchester ordinary will point in triumph to Newton who took to vegetarianism during a period of close application, to Lavoisier who lived on milk and bread while engaged in certain arduous inquiries, to poor young Shelley, even to Byron, to Dr. Cheyne, to Lambe, who returned to nature and distilled water, and to a score of other notables ; who were neither horses nor walking vegetables, but men of human energy and intellect. But not one of these modern instances is to the point under consideration : they were not the sons of vegetarians ; they were not always vegetarians ; they were not vegetarians during their growing times ; and they were all morbid and exceptional subjects : and this is the proper place to submit a remark of some importance. This is a world of dyspeptics, and men of study are the most alarming dyspeptics in the world, women of fashion being their only equals. One of the very frequent manifestations of dyspepsia is an incapability of assimilating animal food, sometimes accompanied by an aversion to it, but not always. Another is a sort of half-way to that, namely, a susceptibility to much disturbance during the otherwise successful digestion of flesh-meats. In a third case, there is disorder and discomfort produced by mutton, and not by beef ; in another, by milk, and not by mutton or beef ; in another, by bread, and bread alone ; in another, by sugar ; in another, by a pea or a blade of spinach ; and so forth interminably. Every physician is familiar with

the strange caprices of the assimilative power in man ; and there are, doubtless, thousands of cases for which a judicious vegetarian diet is the very thing that is wanted, as there are just as many more for which an almost exclusively animal fare is requisite, at least until the patient have regained his more catholic tastes and affinities. In a word, there are many special tendencies to disease, just nascent, perhaps, and therefore scarcely noticed as such by the dyspeptic, which are best met by vegetarianism for the nonce, and even for life in some cases ; although it is not unlikely that the profession has recourse to the prescription of it only too seldom, owing, doubtless, to the continued absence of fixed scientific principles on the subject ; and a chronic sufferer, be his complaint what it may, could hardly do better than find out by patient and careful trial the generic, it may be the specific or even the individual, food that is best adapted to his state, because he can do it himself much better than the physician can do it for him, supposing him to be a man of sense and observation. In the meantime, however, be it stoutly affirmed and frankly confessed, that even a largish number of individual instances, in which all sorts of benefits are derived from the practice of vegetarianism, are possessed of no value as evidence concerning the proper food of man ; and these abatements apply with still more stringency, of course, in a literary and historical point of view, to the Cyruses and Daniels, and all the vegetarian heroes of antiquity. It is only great masses that count in a general and approximate inquiry like the present.

The large classes of professed and intellectual vegetarians, usually cited in this trial of the principle before the common sense of these days, are the Essenes, the Pythagoreans, and the Brahmins of India. But it is

easier to prove all these three most important sects of antiquity (for Brahminism is but a petrified piece of antiquity after all) to have been recipient and conservative organisations composed of soaring idealists, than to show their contributions to the solid attainments of mankind ; and it is doers of the work of the world that we and all men want. It has been proudly claimed, indeed, that Jesus Christ was once a young disciple of the Essene mystagogues ; but it is enough, in connexion with the present argument, to remind the reader that the Son of Man 'came eating and drinking.' In honest and deprecatory, but not depreciating phrase, the Essenes, and their cousins of the East and West, were mystics ; the extreme opposites, indeed, of the present peasantries of Europe, but not sturdy, world-compelling, intellectual men ; the holders of high and remote ideas, which they never could wed into lasting and fruitful union with the realities of nature and of life. Whereas the inspired penmen of Bibles, the founders of progressive empires, the builders of temples, the excogitators of philosophy, the matchless sculptors of Greek and universal renown, the edifiers of the Christian Church, the painters of Christendom, the men who have reared the swelling fabric of modern inductive science, the leaders forth of liberty, and all the true conquerors of the world, have sprung from the midst of peoples that thought it no shame to slay and eat ; even if they did not, in every individual case, come eating and drinking to their task. Why, this good land of our own, with Shakspeare and all her poets, Jeremy Taylor and all her divines, Berkeley and all her philosophers, Bacon and all her guides of thought, Newton and all her discoverers, Watt and all her inventors, Cromwell and all her protectors, with her liberties, her merchandises, her hospitalities to the op-

pressed, her colonial empires, her young American giant, and her innumerable connexions with the genuine work of the world, is worth a hundred priesthoods of mysticism, her roast-beef and plum-pudding notwithstanding. In sober earnest, England and America are capital facts, which it will require an enormous new generalisation to supersede ; and if the whole continent of America were first to become English, and then to take to Graham-houses and cold water, the worshipper of fact and of the unmistakable past might well be excused if he were to dread its lapse into a state of inanition,—

‘ As wide as Asia and as weak.’

It is obvious, however, that this sort of presumptive argument may be carried too far against the dietetic reform. The past proves no principle. It only affirms itself. It denies nothing else. It is content with asserting that we have written the plays of Shakspeare on beef and beer ; neither daring nor wishing to foretell that we shall never do the works of a greater than Shakspeare, if we will only cleanse our ways, and sweetly live for a sufficient number of centuries on bread and water. The vegetarian has a right to call the past a dead though glorious fact, and say it has no speculation in its eye. What ! because we have done pretty well for centuries on an excess of drugs, shall medicine make no attempt to abate the nuisance ? Because we have thriven under the state and character of a considerably drunken people, shall we not try to become a sober one ? Because the infant Elizabeth was part-strangled in swaddling bands, shall the Queen’s children run the same risk ? In short, because we have done wonders in spite of all our transgressions, shall we break the law for ever ? The past is not even the safe side ; for, if any offered plan be really

an improvement, it is at our proper cost that it is rejected.

This is all very true : but, in the present comparison, there are two past tenses. There is the past of vegetarianism, and the past of a vegeto-animal diet: mystics and peasants belong to the former ; the veritable leaders of the world, from the poet and the discoverer down to the skilled artisan, belong to the latter ; and it is only dyspeptics, who are a sort of mystic, and virtuous do-nothings, who are a sort of peasant, that will hesitate which to choose. At the same time, it is quite possible that vegetarianism has not yet been fairly tried ; the intellectual and physical whereabouts of its antique and oriental sects may not have been otherwise favourable to the experiment: and we are ready to grant this, not only for the sake of argument, but likewise because it is a very reasonable supposition ; but, such an admission being once asked and made, the vegetarian must relinquish history and fact altogether, and betake himself to principle for better for worse.

Some of the physiological reformers are fond of urging home the consideration that it is ungentle, cruel, ferocious, to sacrifice other creatures' lives in order to support our own. They sometimes go so far as to avow the opinion, that it is unlawful to do so, excepting in circumstances in which it is absolutely necessary ; and there do occur occasions in which it is right to slay even a man in order to devour him, as everybody knows. Now it is impossible to be too bitter in the denunciation of all the horrors of the stall, the road, and the slaughter-house ; or to be over anxious to put an end to every stroke of cruelty proper, that is to say, needless injury, in the putting to death of fish, fowl, or quadruped for the purposes of the kitchen ; and all wantonness in the pursuit

of field sports should be angrily cried down, although it is certainly easier to express one's-self on that subject with good feeling than with knowledge : but, unless it be first established that generations of the kind of men the world wants can be reared without the partial use of the animal principles, the tender movements of sensibility must be sternly superseded by the necessity there exists for at least a guiding class of the right stamp ; neither mystics and dyspeptics, nor peasants and do-nothings, but men of generous vitality and an altogether human nature. Nothing less than such and so difficult a preliminary proof is to be demanded of a sect that endeavours to seduce a nation from its time-honoured ways of living ; and such a proof is not yet forthcoming, so that there is only one way open to the vegetarians of the present age. They must increase their numbers immensely, whether with or without good arguments of the presumptive or probable species ; they must repeat the experiment of the ancient vegetarian schools on a magnificent scale, in the very midst of an on-looking country ; they must show us and posterity the spectacle of generations of their sort of people, not only thriving as a sleek kind of animals, and effervescing here and there into intellectual visionaries, but coping with the conservative residue in the bringing forth of artists, men of science, statesmen, great captains if need be, rulers and heroes. This may sound a harsh and almost an insulting judgment, but it is just ; and there are several truly momentous causes now in presence of the world, and calling aloud for sentence, which must be content with the selfsame verdict. It is by no means the greatest matters that can be settled off-hand by a demonstration or an argument. There are questions in astronomy, the most rational and certain of the sciences, which have to wait seventy years, centuries, a millen-

nium, for an answer. This inquiry is of the same order, with a difference: and, were we vegetarians, the fact would be accepted with candour and faith; for it is surely an honour to be believing parties to one of the large results of time.

But let this vast experiment be fairly made. It appears in their books and tracts, that the great majority of New English vegetarians indulge themselves in the use of eggs, milk, cheese, and butter. With the help of wine and malt liquor, an honest member of this fraternity may enjoy a very good table; but it is only a change of names. It is a practical giving up of the physiological part of the proposed reform; for eggs are but birds in little, and that little highly concentrated; milk is just a kind of bleached blood, wisely secreted for something not unlike direct transfusion into the infant circulation, inasmuch as it scarcely needs assimilation; cheese is the very animal essence of milk, and butter is only another form of beef-suet.

A chemist at Paris once invited his friends to an elegant and varied *déjeuner*, wholly composed of preparations made from wheat. President Hénault used to tell how the famous Maréchal de Richelieu, who seems to have been all but a perfect *culinaire*, and more than a perfect *gourmet*, once supped five-and-twenty German princes and princesses, to make no mention of unnumbered chamberlains and maids of honour, on nothing but beef and beef, the feast having been eked out with some preserves, dried fruit, and lentils. It was in his camp during the Hanoverian war; his guests were prisoners, whom he intended to liberate, if they chose to make a moonlight flitting with his connivance, but whom he also wished to entertain right royally in the first place; his *officiers de bouche* were flung into despair by the order



to prepare a princely table from the resources of an exhausted canteen ; but the knowing old general seized his secretary's pen, and extemporised an ever-memorable *menu d'un excellent souper tout en bœuf*: and a glorious turn-out it certainly was, as anybody may see who will take the trouble to consult the *Souvenirs de la Marquise de Créquy*.

What could a skilful kitchener, then, not do with every kind and every part of plants at his command—roots, fruits, seeds, juices, excretions, and tender leaves ; supported by all manner of fowls in their eggs, and by cows' milk, which is almost the blood of the creature's flesh, 'which (again) is the life thereof !' It were mere sophistry to assert that eggs and milk are lighter in digestion, weight for weight, than flesh and blood ; as any member of the beef-steak club will certainly discover, if he will just bolt a pound of fried egg, with potatoes and bread and stout to match. When there is any material difference between the assimilability of these pairs respectively, it is a matter of idiosyncrasy, an affair of morbid caprice : one man cannot touch an egg but at his peril, who will straightway dispose of a pound of pork without any difficulty ; while another dares not touch a mutton chop, who will both dine and sup on toasted cheese for a month on end ; and a third is seized with a diarrhœa if he put milk in his coffee of a morning, who will indulge the same evening in lobster cutlets or crab pie with impunity. In fact, eggs and milk are flesh and blood, beyond a controversy ; and our vegetarians of this and the next three centuries must give them up, if they mean to be physiologically consistent. British common sense will not listen to them unless they do.

Chemistry and physiology once abandoned, it were in

vain to fall back upon the sentimental, and really tender-hearted and honourable outcry of humanity (when not an-hungered) against cruelty to animals and every unnecessary outrage upon the holy thing, sensitive life. Such a protest has some meaning, and must be respected, on the clean lips of the true vegetarian ; but it has none, and cannot be endured, on those of the false majority. Is it not still more cruel to rob a hen-bird's nest, than to shoot her dead in a moment or a minute of time ? Is it not more hard-hearted to snatch a staggering calf from its lowing mother, in order to steal the milk or purified blood which the poor cow pours out of her own arteries for the use of her offspring, than to fell the one with a blow of the axe, or to let the little life of the other lapse away in a short and easy stream ? Besides, if man have no right to slay the lower animals in a summary manner, and thereby save them the more protracted pains of death, or else the still more horrid fate of being worried and devoured by their natural destroyers among the brutes, he cannot but be wrong in tampering with their original natures, and converting them into monsters for his especial gratification. The udders of the cow, the way in which they yield milk nearly all the year round, the daily laying of barn-door fowls, and the wool of sheep, are none of them natural ; they are all monstrous, to borrow a very proper epithet from the zoologist. All the various breeds of dogs, horses, sheep, and cattle, are but monsters ; they are against the use of nature ; they are brought into a habit of body, in which they are liable to the attacks of certain dreadful diseases ; and it is we who have made them what they are. Mankind have a right to operate all these changes, so they be done in honour ; but still more, in our opinion, is it lawful to kill any or all of the

lower animals without cruelty, whether for food, for raiment, or for protection : and it is difficult to understand how the same opinion is not entertained by those pseudo-vegetarians, who think it no unkind robbery to take their eggs and milk. By the way, did it ever occur to them that they could not procure anything like an adequate supply of milk, and that society as a mass could hardly obtain it at all, unless whole hecatombs of calves were bled to death in order to the manufacture of so many hundredweights of veal ? And if our vegetable trimmers were really to become consistent, henceforward eschewing all conversation with flesh and blood, that is to say with eggs and milk,—what then ? Why, they should deny us leather for our sandals, shoes, gloves, and other accoutrements ; they should refuse us wool, for it is a morbid and a monstrous growth, and the clipping of it from the sheep's back must assuredly expose it to danger as well as wretched discomfort ; they should allow us no horses to ride or drive, because it is a far bitterer discipline to be bitted and trained, to say nothing of being spurred and whipped and galled, than to be summarily killed in the shambles ; and, in conclusion of the whole matter, they should invade a hundred usages, and provide a hundred substitutes, in order to comply with all the exactions of their theory : but it were neither pleasant nor profitable to follow them any farther, until the grand experiment, to which they have just been called, be leisurely performed. The twenty-second century awaits the result with patience.

Pending the progress of that great and public competition, the best authors on the side of vegetarianism plume themselves not a little on the discovery of modern chemistry that vegetable albumen, casein, and fibrin,

are substantially identical with the animal principles of the same names, the main ingredients of egg, milk, and flesh respectively; and these are represented by the chemical physiologists of the day, especially Liebig, as the plastic or truly nutritive parts of food. With what abatements soever must be made upon it by a rigid criticism, this is a fine discovery; especially when subordinated to the still more beautiful one of Mulder, that there is one unfailing proximate principle, now well known under the name of Protein, which is the common basis of these three proximates, whether vegetable or animal. According to this view, protein is the sole plastic nutriment, or flesh-forming principle of the human body; which, by combination with amazingly small proportions of sulphur or phosphorus, or of both together, or of phosphat-oxygen, or perhaps of still other salt-radicals (and possibly by internal transformation of its highly complex particles, with or without any new combination), gives origin now to the fibrin of the muscles, now to the albumen of the brain and nerves, and now to the cheese of that maternal milk which is destined to nourish the whole body during the most perilous year of its life. The chief point to be attended to in the present connexion, however, is the circumstance that protein not only abounds in vegetable bodies, but that, in the cereal and podded seeds, which constitute the staple of a proper vegetarian diet, it exists in the most appropriate admixture with starch and other compounds, which are supposed not to be strictly nutritive, but to be of use for the keeping up of the animal heat by means of their slow combustion, and other chemical transformations, at the lungs and throughout the system. Roots and fruits, on the other hand, contain an excess of the latter sort of principles,

sugar, cellulose, gum, oil, and other things ; and they can be mixed with the wheats and pease in any proportion, so as to produce a various bill of fare, adapted to the circumstances of every eater.

On the contrary, an animal diet has nothing but fat or oil answering to the nature of non-nutritive combustible matter (to speak broadly, for it does contain small quantities of the saccharoid substances, milk holding an abundance of a sort of sugar in solution) ; and carnivorous beasts or men, such as the Patagonians and Anthropophagi, must use an excess of bodily exercise in order to waste the tissues with sufficient rapidity for the sustaining of the organic heat. In the common mixed diet of the energetic classes, this evil is avoided by using animal food with moderation, and eating roots, leaves, herbaceous stems, fruits, feculas, sugars, and oils along with it ; which is precisely the intention and result proposed to themselves by the vegetarian critics, if the matter must be considered from so very chemical a point of view. Would it not be more frugal, however, more humane, more elegant even, more cool and pure, more conducive to the freedom of mankind from inferior cares, and altogether more subservient to the moral and intellectual life of the race, to draw the desired admixture of nutritive and combustible aliments entirely from the garden and the field, than to slash the carcasses of our fellow-creatures for that very protein, which the whole world of plants is continually a-weaving for the use of animals and man ? Has bread not been the staff of life from of old ? Was not the very word *Corn* spelt *Carne* in early English books, and what is that but the Latin for *Flesh*, another name for *Grain* ? Shall we not, then, rather incarnadine our ruddy hearts and arteries with the offered body of *Ceres*, and the overflowing blood of

Bacchus, than ingrain our limbs with the unconsenting and revolting fibres of our dumb fellow-creatures ?

This is a striking argument. It looks scientific and incontrovertible. Yet it is not satisfactory, even if it be difficult to refute it, and impossible to prove its opposite. Waiving all question of the soundness of the methods now prevalent in the so-called science of organic chemistry (although they stand sorely in want of a searching criticism), there can be no doubt in any mind, whether carnificial or grain-raising, that mere similarity or even identity of chemical composition must not be allowed to count for too much in physiology. It is not without importance, as it certainly is peculiarly interesting to the chemist as such, to discover the ingredients and proportions of organic bodies, to classify them, and to register their endless transformations. It is organic chemistry herself, however, or rather exorganic chemistry (for 'rest her soul, she's dead'), dealing with the corpses and exuvial spoils of plants and animals, that has once for all put an end to the exaggerated value of mere composition; having made the amazing discovery that two, ay, or ten bodies may be composed of the same elements in the same proportions, and yet be very different substances. To take one of the first discovered instances, if not the first genuine one,—what two things could be more dissimilar than cyanogen, a colourless, pungent, deadly gas, and paracyanogen, a brown, insipid, innocuous solid body? Wherefore it is just possible—and some advocates would say it is extremely probable—that the vegetable protein compounds may require a vastly greater degree of assimilation than their lower-animal counterparts, in order to take their place in the human body, notwithstanding that they are very much on a level as to their ingredient elements and pro-

portions. Beef and mutton are certainly much liker our own flesh and nerve than are bread and pancakes, to the feeling, the eye, and the general sense of the eater ; and even science cannot but suppose that they are, in every physiological sense, nearer akin to the living substance of man than anything belonging to the inferior kingdom of nature. Accordingly, although the body of man can certainly change vegetable protein into the necessary animal compounds and modifications ; nay, although there is no saying what difficult chemistries it can affect for the purposes of self-preservation, when it is put to it by circumstances of privation : yet it is likely that, in its truly healthy state, the animal proximates are convertible into good blood at the smallest possible expense of its organific powers ; so that its higher parts and nobler activities, not to say the indwelling man himself, shall be free to do their best. This is a very serious consideration, for a man cannot escape the Nemesis of natural law ; and it is always possible, to say the very least, that the diet of his ancestry and his own may provide one of the hundred conditions to a manly success in life—to his making or his just failing to make such and such a discovery—his writing or his not writing this or that poem—his better or worse relation to his country or the world. If this be to inquire too curiously, when applied to any individual, it is assuredly not so when a nation or a race is under consideration. It may be abruptly added, as a sort of tailpiece to the present grave paragraph, that not one of the lower animals can compare with the dog, in the small beginnings of intelligence and a bastard morality ; and the dog was once no better than a carnivorous brute, but is now a trust-worthy convertite to the mixed diet of his master, who is at once the cook and the conqueror of creation.

It has just been said that chemical composition is but a small matter in the more sacred science of physiology, at least comparatively speaking. Why, there is little difference between the numerical composition of a muscle and a nerve. The glass of the eye-ball, which lets in the light, contains the same elements, in very similar proportions, as the retina, which sees or sends the image to the mind ; and the composition of a cocoa-nut or any other oleaginous germ comes egregiously near to that of the thinking organ of a Johnston or a Playfair. Nor can the scalpel and the microscope do much towards the explication of the surpassing mystery of life. They have not yet discovered the millesimal fraction of a reason, why brain should think and muscle contract ; and they will probably one day find out, that the differences and functions of physiology have nothing essential to do with either chemistry or mechanics, even the mechanics of structure and tissue under the magnifying glass. Analysis, dissection, and microscopic inspection, can none of them touch the real question of vitality ; they are ludicrous in its presence ; their Lilliputian devices move it to laughter ; it holds them in utter derision ; and it is therefore supremely unsafe, if not very ridiculous, to plead the vegetarian or any other physiological cause on purely chemical grounds. The only use of chemistry in such inquiries is, to enable us to follow experience. Such and such a substance having been found good for food, or another having been discovered to be poisonous and medicinal, first what is called a proximate analysis, and then a series of ultimate ones, record the facts respectively in a more or less divided form. If it be good to know that milk is a nourishing thing, it is more interesting, perhaps, if not more useful, to learn that casein, albumen, butter, and milk-sugar (being proximate in-



redients of milk) are nutritious principles; and it is better still to discover the exact elemental composition of these secondary compounds. Analysis has contributed a vast amount of important knowledge, of a preliminary and subordinate sort, to the science of physiology; but it is dumb and unintelligent, as well as unintelligible, the moment it crosses the marches which separate the doctrine of life from that of affinity. For example, it not only cannot yet explain why prussic acid, a compound of carbon, nitrogen, and hydrogen, should be a deadly poison; but it will never be able to render a reason for the fact; inasmuch as the quantity of that acid capable of immediately destroying life, when properly applied to any part of the body, is so small, that it would have no adequate chemical reaction on the frame even if it were a corrosive substance. The relation of the living body to prussic acid, in brief, is physiological and not chemical, although there is, at the same time, no doubt but that relation would have been different, if the composition of prussic acid had been different; but the physiological effect far transcends the chemical cause. Chemical effects are connected with, and strictly limited by, quantity; but physiological results are amazingly independent of either weight or mass. If homœopathy be true, the decillionth of a grain will work with power throughout the whole system, if applied by the hand of skill; and, to leave the debatable land of science to the lovers of question, a grain of opium can certainly turn a man of ten stone weight upside down; while as much kakodyle would dash him to the ground in an instant, as though he had been smitten by a bolt.

Now, the flesh of all the vertebrated animals commonly in use contains, or at least yields to the action of

hot water, two principles of a kind not to be found in the wheats, pease, and potatoes of a vegetarian diet. They are crystallisable nitrogenous substances—kreatine and kreatinine. The former, however, is just kreatinine combined with water, and thereby rendered a neutral body, in so far as acids and alkalies are concerned. A strong acid abstracts its water, and combines with the liberated kreatinine; whereas kreatinine when just in the act of falling free from a state of union with chloride of zinc, takes on water, and kreatine is reproduced; so that kreatinine is the compound of importance in the present instance. Not only in being separable in colourless crystals, but also in composition, it resembles the vegetable alkaloids; such as theine, the active principle of tea and coffee; nicotine, that of tobacco; quinine, and morphia, all well known as medicinal bodies. It is exceedingly probable, in fact, that the stimulating quality of animal food, especially of soup-stock, is inherent in this very alkaloid or animal tea: and those vegetarians who are also total abstainers from alcohol and all other medical stuffs, may claim so likely a thing for their cause; while those who are not quite such frightful puritans, may comfort themselves with the substitution of that bloodless vegetable kreatinine, which is the essence of tea and coffee. The animal kreatinine has, however, this advantage over the vegetable,—there is no danger of its being taken to a vicious excess, even by a glutton; and nobody ever suffered those woful disorders of the nervous system, which these vegetable stimulants are constantly producing, from the use or abuse of beef-tea. It is likewise curious to remark how the instinct of society has assigned tea or coffee to those meals which are almost vegetarian; for milk and eggs, although animal products as food, are not so as stimulants, since

they possess no kreatinine : the stomach is apparently aware that it must provide itself, on such occasions, with a substitute for that mild inspirer ; and certainly it could hardly find a safer succedaneum than theine. If, as we are of opinion, kreatinine does not exist in raw flesh, at least in a state of freedom to act physiologically ; but is produced, or at least liberated, by the reactions induced by hot water : it is only the human body, under the administration of a rational and culinary soul, that ever experiences the influences and aids of that meekest of the narcotics or stimulant-sedatives, as we have supposed it to be. We must repeat, however, that it is impossible to dogmatise, or even to speak with much probability, upon such points in the present infantile state of science. We would only disburden our consciences towards such fine ladies and men of study as use an excess of tea or coffee, together with the minimum of honest beef and mutton, in advising them to take thought in time and change their system : and also towards the genuine bread-fruit-and-water vegetarians, by warning them that they may possibly discover themselves to be mere digesters and flesh-growers when it is too late ; a fact which will probably be still more manifest, however, in their children and grandchildren, supposing their generations to be so persistent.

There is an argument brought forward by some of the apostles of vegetarianism, which can well afford to look down upon the paltry chemistries of diet with contempt. It is drawn from the high region of man's proper humanity, and belongs to the evangel of love. Mr. Sutton is its mouthpiece in this country at present, although he did not give it birth ; and a pleasant voice it finds in the organ of our young mystic. It admonishes society with all becoming gentleness, how she has no

celestial or earthly right to condemn any of her dear children to the bloody nerve-steeling, mind-degrading, heart-hardening, conscience-searing, and spiritual-eye-extinguishing offices of the sportsman, the henwife, the fisherman, and the butcher.

Now this affectionate strain of argument cannot cease at the shambles. Once free of the poetic lips of a Shelley, the logician catches up the word, and sends it forward without relenting. No sooner is the tender heart of vegetarianism disburdened of it, than communism prolongs the cry; and St. John Street echoes and re-echoes the woman-like wail of Arcady. Society is said to be the original of that mythical antique, who is well known to have lived in a shoe; henceforward, however, the matron is not to bring up any of her children to low-lived trades and businesses, but to rear them all in honour to be professional men and women at the very least, and to be gentleman-poets or paid members of Parliament, if the thing can be done. It will be still better, both for herself and them, if she can manage to make them all complete men, at once philosophic and poetic, contemplative and creative, spiritually free and corporeally idle!

To be brief and serious: it is beyond our province—if indeed it be a desirable thing—to speculate on the far future of humanity, seeing the nearer future of Europe is so questionable as it is; yet we can easily conceive of a millennial epoch, when the well-educated and every way manly citizen will not think it injurious to prepare the food of the State, if that be the function to which he may be called by fitness and circumstance; but that result, among a thousand equally life-like and worthy of a modest human nature, will be brought about, in our opinion, not by social asceticism, but by improvements in the arts of life, in education, and in government.

Some vegetarian writers, nothing doubting regarding the original food of man, seem to be of opinion that the progress of population will eventually reduce him to the necessity of again subsisting on the produce of the soil. Not sharing their beliefs as to the proper diet of the race, and having already shown cause why their preliminary case cannot be considered as made good, we shall not be expected to follow them in the very conditional argument upon this particular point ; the more especially as its bill, even if a true one, is drawn at so long a date as to afford ample opportunity for the great trial and experimental testing of vegetarianism, to be performed by and upon them and their seed after them during the next three hundred years. Not to mention the thousand contingencies of actual history, by which scientific prophecy is liable to be belied, there can be no doubt in any mind that, long before the latter days arrive, the generous experiment will have been made and adjudged upon. It is a great matter to know beforehand, what it needeth neither ghost nor vegetarian enthusiast to publish, that the body of man can be kept up after a fashion by the sole use of a vegetarian diet, though not, it may be, after the measure of humanity in its best historical estate. Nor is it a small comfort to think, that ere the coming round of those quiet centuries, the brawnier work of the world will be well-nigh brought to an honourable conclusion ; and the sweet-minded botanical livers of those æons may give themselves up to the contemplation of ideas,—a kind of life or state of exolution, to which bread and water are much more favourable than beef-steaks and bottled stout.

In conclusion of this rapid glance at the position, and into the principles, of the respectable social movement under review ; if the discussion have been conducted

with some appearance of levity, the candid vegetarian will confess that it has been more in the manner than the matter of our animadversions.

We think we have made clear our conviction that this new Puritanism, as we have ventured to denominate it, is no trivial fact when considered as a whole, and reviewed in relation to the prospects of society. The three-headed anti-poison league, the huge protest against alcohol in all its guises and disguises, the sanitary outcry about filth and foul air, the phrenological call to the obedience of the organic law; and this feeble vegetarian summons of the lieges to a still purer physical life than was ever dreamt of by Mesmer, Hahnemann, Priessnitz, Combe, or Father Mathew,—were all wanted by the age, else they would never have arisen upon us, suddenly and simultaneously, like an insurrection of citizens against a tyranny grown beyond endurance. If they severally and collectively do some amount of direct harm, they cannot but achieve a world of indirect good. The national health is at a terrible discount. There is perhaps less acute disease than in former times, and as little untimely death as ever; but the national habit of body is depreciated. Our people are etiolated; every tenth man is a pauper; every seventy-fourth is a drunkard; three generations of pauperism is producing the negro type, without its redeeming black and brown, in some parts of Ireland; and no whole family is free from the strumous or emasculating and morbid taint. Let any capable person search his own, from his two pairs of grand-parents down to his own children and their cousins; and ten to one, if the connexion be large enough for average purposes, he will find himself compelled to count rickets, scrofula, decline, consumption, epilepsy, idiocy, drunkenness, insanity, gout, premature

decay, apoplexy, paralysis, and a dozen other constitutional diseases, among the natural enemies of his kindred. It is clear that the national circumstances and manner of life are to blame for this dreadful result. Circumstances are little under our power, but the customs of society are much ; and it is well that these customs, whether medicinal, dietetic, or regimenal, be brought to trial. There is need for quick reform, whether radical or partial, in everything with regard to which the necessity of reformation shall be proved at the bar of common sense: for, precisely as there are critical times in a man's life, when he does well to brace himself with more than common virtue for some momentous struggle, does Great Britain now require to rise to her full height and stand in readiness ; seeing the other nationalities of Europe are trodden under foot, and the cause of man against self-seeking animalism is almost without a friend on that great Continent.

Leaving the great medical question of the age to the divided Faculty, and withholding judgment on the practice of total abstinence from alcoholics, we cannot refrain from pronouncing an opinion on the whole matter, somewhat more at large than in the course of the argument on vegetarianism in particular. There are not only individuals, but (thanks to a rate of civilisation with which cultivation has not been able to keep pace!) a whole class or great ward of people, for whom a real vegetarian diet and abstinence from every stimulant, down to tea itself, may be the best prescription in the world. There are still more, who might do worse than follow a milk or a milk-and-egg one, with or without a little wine for their stomachs' sake. In short, there is no end to the variety of dietetic combinations suitable to the endless variety of latent or manifest dyspepsia and

strumous mal-assimilation ; and the physician is the proper person to guide those countless patients and half-patients to their respective tables, although sensible people in this predicament will be able to help their medical adviser to a right conclusion, if not to supersede him altogether, by a patient course of experiments on themselves. The healthier residue of society, which still comprises the greater proportion of the creditable working classes, from the statesman down to the intelligent artisan, had better hold by the frugal use of a well-cooked diet of flesh-meat and vegetables, accompanied or not by the very limited addition of the alcoholic and alkaloid stimulants. If science were in a condition to furnish any more particular counsel, it might offer the suggestion that the protein or flesh-forming constituents of food should be taken from the animal kingdom, and the starch-like or heat-producing fuel of the system from the vegetable world. According to this hint, bread stuffs should be used less, potatoes and other roots, with fruits and leaves, more than is commonly done : and when the former are taken, it should not be along with beef and mutton, but as their substitutes ; an arrangement which is closely approximated by the daily bills of fare adopted by the upper and middle classes of society—were it only accompanied by other obediences. Such is the mixed diet, always understanding that it be thoroughly well cooked, which is the best for the less unsound ; and the best for the more morbid too, as soon as their milk-diet or their altogether vegetarian fare shall have made them equal to it : if it is not mere vegetative plumpness or muscular strength that is wanted, but the perfect freedom and full activity of the whole nervous system, from the front columns of the spinal marrow to the top of the brain. On the whole, then, the stout majority of



society are not very far wrong regarding the choice and mixture of their food and its quality: but it is the unanimous opinion of physicians and other observers, that we are an overfed people in the mass, just as undeniably as every fifth man is underfed; and to those two dietetic extremes, a great proportion of the constitutional disorder of the nation must be traced. It is certainly in quantity that the greatest errors are almost universally made. Temperance is therefore the virtue to be insisted on, and probably some rigour of temperance. Vegetarianism is temperate by necessity, and that constitutes the greater part of its virtues; and if anybody, who has been restored to some measure of health by the observance of it, were just to return by degrees to a mixed diet, but to restrain himself to half the quantity he used to take, one might almost promise him a nobler, if not a lustier life. Temperance is morally better than abstinence, being a continual discipline of the will; and, in the present instance, it is physically better too. It is perhaps superior to abstinence, both physiologically and spiritually, in regard to alcoholics also, and indeed to all lawful indulgences; but temperance is difficult to many, a dreadful task to some, and impossible to not a few. It is therefore a good thing for society that the cause of abstinence has its party, grasping at the poor drunkard and anticipating the fall of the weak; for it is not necessary to join in all the generous crusades of the day against disease and vice, in order to wish them well. At the same time, we confess ourselves so lacerated and heart-broken by the contemplation of our country's drunkenness, that it is only with diffidence that we dissent from those who condemn wines and beers and spirits as altogether bad for the constitution of man. But this is not the place to enter into that important contro-

versy ; and it has been adduced here solely for the sake of illustrating the supreme worth of true and universal temperance, or the spirit of obedience to all the laws of man's manifold and miraculous nature,—the physical, the vegetative, the animal, the intellectual, the moral, the spiritual, and the amazing union of all these categories in one harmonious code. Temperance is the very angel of health ; and health is literally nothing but another name for the wholeness of the stuff and manner of our existence.

## THE METHODOLOGY OF MESMERISM.

(MASSACHUSETTS QUARTERLY REVIEW.—Nos. VII. and VIII.)

It is by no means the purpose of this essay to enter into an extensive and penetrating criticism of the details of Mesmerism. Its object is not nearly so difficult of execution. It simply proposes to consider how far the phenomena of zoö-magnetism do really deserve the serious investigation of inductive science; to convey to such readers as may not yet have attended to the subject, even as a literary appearance, some vivid conceptions concerning the sorts of things asserted by mesmeric authors; to pronounce a short, certainly not an uncharitable, and if possible a just, scientific judgment regarding the general character of the statements of the science; and to bring the universally accredited fact of the mere mesmeric sleep or trance into harmony with the system of Nature, so far as that system seems to be understood.

It is well known to the students of modern British literature that Samuel Taylor Coleridge, the 'inspired charity-boy' of Charles Lamb, a poet of deep-going insight and most musical expression in youth, a well-read and original metaphysician in manhood, an agonising divine in old age, and altogether one of the most lustrous of modern spirits, bestowed a great deal of study on the subject now approached. It is duly recorded in a note to Southey's *Life of Wesley*, that, after having considered

the question in all the aspects in which it had then been presented, and that during the course of nine years, he could not conscientiously decide either for or against the claims of Mesmerism. It is worthy of notice, however, that the word *Mesmerism* stood in the vocabulary of that time as the sign of nothing more nor less than the apparent transference of one species of sensibility to the organ of another, on the one hand, and the faculty of far-seeing on the other; an equivalent which is far from sufficient for the symbol at this time of day. Furthermore, Coleridge did undeniably study the evidence in favour of such Mesmerism from an unwarrantable point of view. For example, he examined the testimony for the so-called fact of far-seeing in inseparable connexion with the theory usually advanced in explanation of it; being of the prejudged opinion that 'nothing less than such an hypothesis would be adequate to the satisfactory explanation of the facts.' This was to investigate the grounds on which an asserted thing was made to rest; but it was to investigate them with an intellect predisposed against the only conceivable idea of the possible fact, and that was to investigate them with an intellect predisposed against the very possibility of the asserted fact itself. Yet the evidences of Mesmerism were able to bear the scrutiny of this searching and not uncoloured eye: They were 'too strong and consentaneous for a candid mind to be satisfied of its falsehood, or its solvability on the supposition of imposture or coincidence; too fugacious and unfixable to support any theory that supposes the always potential, and, under certain conditions and circumstances, occasionally actual existence of a corresponding faculty (of far-seeing, in-seeing, fore-seeing, &c.) in the human soul.' The parenthesis in the last sentence is our own.

Everybody must be aware, of course, that the inquiries of so hungering and thirsting a student as Coleridge always was could not consist in attendance upon ever so large a number of stray lectures or *séances*, or the perusal of the half-literary pamphlets and paragraphs that constitute the staple of mesmeric literature in Great Britain and America, or a professional glance through the notorious misreport of the French Academicians. "Nine years," says he, "has the subject of Zoö-magnetism been before me. I have traced it historically; have collected a mass of documents in French, German, and Italian, and from the Latinists of the sixteenth century; have never neglected an opportunity of questioning eye-witnesses (as Tieck, Treviranus, De Prati, Meyer, and others of literary or medical celebrity); and I remain where I was, and where the first perusal of Klug's work had left me, without having advanced an inch backward or forward.' Thus, and after such a career of book-reading, this 'most spacious of modern intellects,' to repeat the epithet applied to him by Thomas de Quincey, neither could bring himself to accept, nor suffer himself to reject, the statements of the higher order of experimentalists and observers in this dim recess. Yet he was a scholar peculiarly qualified to give a righteous judgment in so complicated a controversy. He had wrestled with almost every science one after the other, like the illustrious Goethe. He was a good physiologist, as well as familiar with all the points of view from which the higher phenomena of humanity can be contemplated. His late posthumous work on the Idea of life, indeed, exemplifies the most singular familiarity with the details of natural history, physiology, and physics; and it is that unspeakable familiarity which consists, not in re-

membering scientific things by rote, but in knowing them by heart. Above all, he was a truly great master in Methodology, or the science whose laws are the rules of scientific discovery ; for one may venture to express the matured opinion, that the dissertation, prefixed to the *Encyclopedia Metropolitana*, approves our present hero the greatest English writer on Method since Francis Bacon published his *Instauration* and his *Organon*. Nor needs anybody be ashamed to profess himself afraid to speak with ridicule or indifference of a vast fabric of statements before which a sage so good, so learned, so penetrating, so catholic, and so candid as Coleridge, was obliged to pause in anxious doubt, after nine long years of research.

This example, however, contains another and a very different lesson. What a contrast does this long-suffering scepticism present to the easy credulity of the majority of proselytes ! Here a divine, there a physician, and here a man of science, are seen eagerly embracing the doctrine and the allegations of the disciples of Mesmer, without anything worthy of the name of methodical investigation ; but because they, the allegations and the doctrine, appear to pass at once into easy consonation with this or that crotchet of their own. The neophyte of the New Jerusalem perceives at a glance that Mesmerism is unconsciously though essentially Swedenborgian, and therefore Mesmerism is true, or very easily proved to be so. The homœopathist soon observes that mesmeric cures are all reducible under the rule of Like to Like, and therefore they are undeniable. The disciple of Schelling is delighted to notice that the trance is an emphatic illustration of the duality of things, and therefore there is no mistake about it. Far be it from us, however, to insinuate that the dualistic scheme of the universe,

homœopathy, and Swedenborgianism are nothing but the crotchets of the visionary ; nay, we revere the mighty spirits who are represented and perpetuated by these outward embodiments of their potent lives, with a kind and a degree of reverence which can be shared only by the St. Pauls, the Keplers, and the Aristotles of the world. But there are men about the purlieus of the Church and the School, in all ages, in and by whom things the most sacred, the most beautiful, and the most important for their truth, are degraded into crotchets ; and it is of such characters alone that we have dared to speak with some severity in the present paragraph. Nor is such severity unwarrantable, for the formation of a candid scientific judgment concerning new presentations is one of the most sacred duties of the scholar and the student.

But what shall be said of the levity with which so many of the laity have espoused the cause of Mesmer ? We have known such light-hearted inquirers, after having sped their shaftlings of ridicule at some Dupotet or Spencer Hall of a morning, attend a peripatetic lecture in the evening ; and no sooner have they seen a fellow solidified in some grotesque attitude upon the platform, or heard his head played upon like an instrument, or wondered at his writhing and wriggling in vain towards a heap of money the audience has laid upon the table for his reward, if he can reach it, than they have hastened home with exultation in the character of what they call believers in Mesmerism. Then there follows a crowd of the most unmeaning experiments, without a plan and without a result, without an initiative and without an aim. Every other chair in a hundred drawing-rooms is occupied by a passive subject, and every other by an operator more passive still in reality, for he

is only one of fifty straws in the breath of a paltry popular delirium. The young disciples soon proceed, of course, like Gratiano in the play, to 'talk an infinite deal of nothing, more than any man in all Venice;' and the city is not long of swarming with the frivolous convertites of the new science:—

'So fools rush in where angels fear to tread!'

To rise, however, to things and thoughts more easily associated with the venerable name of Coleridge, it is a significant circumstance in relation to Mesmerism that the celebrated Strauss, a man of unquestionable erudition, of the most laborious habits of study, of singular coherence of thought, and the most remarkable system-builder of his age, has not only considered but accepted the science. The people of Christendom are becoming aware that Strauss has shown himself, in his far-famed *Life of Jesus*, to be incomparably the most formidable opponent that has ever withstood the popular Christianity of Europe and America. That singular work has agitated many of the best intellects in the world to their very foundations, and moved many of the best hearts to their most sacred depths. Now, one may reject the mythological hypothesis of the history and the present phenomena of Christianity in the world, as it is expounded in the wonderful performance at present referred to; but nobody can blind himself to the fact that one of its very strongest points, especially for the Anglo-Saxon mind, resides in the use the ingenious author is able to make of his reception of the higher phenomena of zoö-magnetism. It is, indeed, an incidental and supplemental, rather than a systematic one; but not the less important in a practical point of view on that account. If it be true that the paltry, conscious, intentional Mesmerist of



to-day can make water taste to his subject guests like any wine he chooses ; and if analogy demands the consequent possibility of making water look, smell, and touch like any such wine, so as to become veritable wine so far as the spell-bound patients are concerned ; what is to become of the miracle at the marriage in Cana of Galilee ? If the mesmeriser do actually heal diseases without material means, or with only such charms as a little clay lifted from the ground and tempered with spittle ; if they can see athwart the earth and look on their antipodes ; if they can prophesy the future, in ever so limited a range ; if they ever become so intimately coadunated with such as are put in communion with them, that they share the memories of their unbosomed victims, and read off all that they have suffered and done ; if they behold visions of the dead and the angelic ; if the mesmeriser can become invisible to them at his will ; in fine, if they sometimes rise superior to the centred force of gravity itself, and ascend into the bosom of the air : who shall find courage to deny that the supernaturalities of Old and New Testament life may possibly, if not probably, have been a manifold and normal manifestation of certain noble faculties native to humanity ; faculties overlaid by the specific functionalities of every other nation save the peculiar people of God, and among them awakened into full activity only in their highest men and women ; faculties, the morbid and impotent struggle of which towards development has been actually going on in almost every age and country, and can be witnessed by the curious in nearly every district of the world to-morrow or the next day ; faculties, in a word, which are destined to add a new glory to life with their completed efflorescence, in those happy æons in which the Race shall be drawing near its first or terrestrial

and ? It is true that all the things contained in this long sentence cannot be attributed to any one author, either mesmeric or theosophical ; and they are neither to be indicated nor refuted at present. They have been brought together, in this instance, solely for the purpose of setting forth the great importance of a thorough investigation of the so-called science of Mesmerism, whether the inquiry is to end in the utter rejection, the imagined acceptance, or the critical modification of its claims. And this importance is deeply felt in quarters where the improbability of the popular Christianity is a thing of far greater moment than it is with us : for Tholuck of Halle, perhaps the greatest of the theologians now belonging to the school of orthodox Protestantism, has not only become convinced of the general truth of Animal Magnetism, but he has actually proceeded to speculate and write upon it in his own way, in order to confront and do battle with the positions of such as Strauss. On the other hand, there is the case of Professor Bosh. That ingenious interpreter, dissatisfied with the common way of conceiving of the resurrection of the dead, and holding by the Bible as the sole and sacred oracle on the subject, proceeded to investigate the scriptural phraseology concerning it. These inquiries into the true meaning of the word put for Resurrection in the New Testament soon became an elaborate examination of all the language held, in Testaments New and Old, anent the nature of man. The conclusion at which our philologist arrived, after a careful comparison of instances, was nothing less than the proposition that is implicitly, if not very explicitly, inculcated in the Holy Scriptures, that a man is composed of body, soul, and spirit ; the soul differing in nature from the spirit quite as much as from the body ; the difference between the

three being a genuine difference in kind. It seems to have been in this way that Mr. Bush developed for himself the conception that the spirit, or godlike element, is ensouled or invested with the soul, just as this, the ensouled spirit, is embodied in or invested with the body. He learned to conceive of the soul as being the spiritual body of St. Paul; and then the doctrine of the resurrection was as clear as day. When the body, or earthly house, is dissolved, we have the soul, a house with God, around the indwelling spirit. The body stript off by the serviceable hand of Nature who lent it for awhile, the spirit stands up within the shapely soul. This upstanding or anastasis is the resurrection; and the moment of a man's death is also the moment of his rising again. This is not the place to enter into controversy with either those views or the grounds on which they are presented; it is not the place either to dissent from or agree with their reviver: but it is very much to the purpose to observe that not only has the Professor found additional conviction in the phenomena of zoö-magnetism, and especially in the hypothesis he adopts for the explanation of these phenomena; but these, the phenomena and his hypothesis of them, have been not a little instrumental in converting the hard-eyed exegete into an enthusiastic though somewhat self-asserting disciple of Swedenborg the Swedish Seer.

The mixing up of the phenomena now referred to, however, with the more momentous interests of theological doctrine, is by no means confined to such high places of the field; for it is undeniable that the religious opinions of many among the laity in Europe and America have been disturbed and thrown into dissonance, if not seriously modified, by their vague convictions concerning the statements and experiments of the magnetist. Such disturbance, it ought in justice to be added, has neither

always nor generally been of an ungenial kind. It is competent to our knowledge, on the contrary, that not a few earnest, if unmethodical inquirers of this great class have been dislodged from the position of materialism by the hints of Mesmerism. There are undoubtedly many of these slight but eager students, whom their notions regarding such amazing things as clear-seeing have enabled, for the first time in their lives, to peruse the New Testament with patience, respect, and hope. In a word, Mesmerism, be it what it may, has actually opened the Bible to thousands,—the Bible, of which it is enough for our present purpose to observe that the history of Christendom has demonstrated it to be at least the most potent manifestation the world has yet beheld. Now it appears to us that it were inhumane and disloyal not frankly to accord the rights of an impartial inquisition to a topic which is working such serious effects in the depths of a multitude of our brethren's spirits. Surely, if Mesmerism can be and literally is brought or forced into connexion with the highest question that can engage the attention, the sooner Mesmerism is tried and set in order, the better for all concerned ; the better for its more crude believers, the better for its few real investigators, and the better for the prudent spectators of the controversy.

It is not only Theology, moreover, but Physics also, that begins to be entangled with Mesmerism ; and this is a circumstance very much to the point. It is now several years since the Baron von Reichenbach,\* a man of experience, an elaborately trained experimentalist, a chemical analyst of acknowledged excellence, and a discoverer of facts, commenced the indagation of these subtle and escaping phenomena from the side of purely

\* For a fuller discussion of Von Reichenbach's views, see *infra*, "Animal Magnetism."

physical science. Nor do the results, obtained by this patient adept in the positive method of inquiry, conflict with the still more startling things asserted by the authors of a less sensuous school. He seems, in fact, to have rediscovered, in his own more cautious and ascendant way, many little phenomena which have long been known and alleged by the followers of Mesmer. He appears to have found that magnets and crystals (or statically polarised matter) on the one hand, as well as light, heat, electricity, galvanism, and chemical action (or dynamically polarising matter) on the other, exert the most unlooked-for influence over the nervous systems of four or five out of every twenty human beings. Chemical action going constantly on within every visible point of the animal frame, he has not only found that one person may affect another in a similar manner, but supposed that therein resides the power of the magnetic operator. He has endeavoured to explain the vaunted might of the old mesmeric *baquet* on the same principle; on the principle, namely, of the vast amount of chemical change that is going on within it. Like Mesmer, the careful chemist has been forced to infer the existence of a peculiar fluid or force, resembling but differing from light, heat, and the rest of the so-called Imponderables, in order to render his observations coherent and intelligible. There is no present need of discussing his hypothetical views. It is enough to take cognisance of the significant fact that an eminent physicist is now engaged in the study of phenomena, long included in Mesmerism, from the physical point of view. Nor is it less important to remember that his researches were introduced to the world of science under the auspices of Liebig and Wöhler, that the late illustrious Berzelius has reported somewhat favourably regarding them, and that

his experiments are of such a kind as can be readily repeated by any one who chooses. Suffice it, also, that the effects asserted to be produced by the agents enumerated above consist, for the most part, of peculiar sensations, generally more or less obscure, sometimes very pronounced and even pungent, now pleasurable, now painful, in one case distressing, in another restorative and exhilarating, but always unique and unmistakable. For example, some of his patients see beautiful flames, of some six, eight, or ten inches in height, twisting and turning around points where the common eye sees nothing at all; at the poles of strong magnets and large crystals, at the finger-ends of some human hands as well as about some people's lips, at the free ends of long wires the moment the other ends are immersed in vessels containing substances in the process of chemical reaction, and so forth. It were little short of an insult to the understanding of Reichenbach and his editors to mention that the whole investigation was conducted with the most stringent precautions against imposture or illusion. But it is by no means unbecoming to observe that the Baron's earliest subjects were chiefly patients either labouring under or recovering from deep-rooted diseases of the nervous system; and it is not easy to escape the suspicion that they were all predisposed to such disorders: a remark which applies with equal force, however, to the most remarkable subjects of mesmeric experimentation. This circumstance is not mentioned for the purpose of derogating from the value of the experiments in question, so much as to render the occurrence of such exceptional and curious things more intelligible, or at least less repugnant to the maxims of ordinary experience. In case, however, anybody should draw out of it an argument against Von Reichenbach's

procedure, it may be well to qualify it by the statement that we were informed about a year ago, by his English editor, Professor Gregory of Edinburgh, that the Baron had for some time been confining his experiments to patients apparently in a state of perfect health, that is to say, a state of as good health as other people enjoy. At that time he had no fewer than sixty sound minds in sound bodies testifying to their perception of his new lights, and permitting themselves to be used as dynamometers for the discovery of the properties of his new imponderable.

As for the character of those who have unreservedly advocated the cause of Vital Magnetism, we are distinctly of opinion that the body of mesmeric authors is very far above the contempt of any man now belonging to the commonwealth of letters. In Great Britain, indeed, there has yet been published nothing remarkable; but the genius of Britain has never been the foremost in the newer and more vague departments of science. It holds back till a science has gained a rooting in the earth, then steps forward and plucks its richest fruits. This proceeds partly from the national caution and reserve, and partly from the essentially practical tendency of the national mind. The English intellect cannot go to work until it has something very sensible to work upon. It ignores the embryotic. The merely dynamical cannot awaken its curiosity. It prefers a visible somewhat to all the forces in the world. It swallows sulphuric ether and chloroform with avidity, but it rejects the thought of one nervous system being struck into insensibility by the reaction of another, with something very like disgust. The stomach is its type, not the lungs. It likes a good mouthful of its subject, for it cannot digest the air. In one word, it might have been

predicated that the mind of England would have been the very last to accord anything like a kindly reception to such chameleon's food as trances and clear-seeings. Notwithstanding all this, however, there are really some respectable names among the British authors on Mesmerism. Mr. Colquhoun is a man of good training, a disciple of the Scottish psychology, and not unacquainted with anatomy and physiology. Elliotson and Engledeue are capital observers and clear writers, although their point of view is lamentably one-sided, being that of materialism ; a circumstance which will certainly vitiate their doctrinal conclusions and consequently embarrass their writings, even while it does not diminish the value of their observations. It must likewise be granted that Chauncey Townshend, Spencer Hall, Harriet Martineau, Atkinson, and Dove, to say nothing of Braid the hypnotist and Esdaile the Indian operator, are all single-hearted and intelligent lovers of truth and man. If they are neither philosophers nor possessed of very rare scientific endowments, they are certainly honest, fearless, and disinterested people. The same sort of thing has to be said of American authorship on the subject ; although it is likelier to receive an adequate investigation in the United States than in the mother country.

It is to France and Germany, in fact, that the inquisitive student must turn in quest of the veritable authors in this strange department of literature. From the Marquis Puysegur and Deleuze down to Dupotet and Teste, there have been hundreds of elaborate productions written and published in Paris. A large proportion of these works have been composed by men engaged in the study and practice of medicine ; and all of them by men of education. They consist chiefly of details, they contain innumerable cases, they are deficient in classification,



they generally dispense with theoretical generalisation altogether, they are worth little as conclusive pieces of inductive research, and they are full of exclamation ; but still they argue zeal, probity, philanthropy, intelligence, and some degree of scientific culture. In Germany, the disciples of Mesmer are, for the most part, of another order altogether. Passavant, Eschenmayer, Meyer, Ennemoser, and Kerner, may be taken as good specimens of them. They are students possessed of such an amount of book-learning, that there are few of our men of erudition but would show like dwarfs beside them. They are industrious in historical research beyond our usual conceptions of literary industry : Eschenmayer has now edited and mostly written some fifteen quarto volumes on the subject. They illustrate their cases and their theories with quotations from Plato, Aristotle, Plotinus, and Proclus, to say nothing of Pythagoras ; from the ancient literatures of Persia and of India ; from the Egyptian remains, and from the Bible. All the mystical library of mediæval Europe seems to be familiar to their indefatigable fingers. The fathers and the Rosicrucians are alike laid under contribution by these relentless inquisitors. They have consecrated their lives to their labours. They are philosophical rather than scientific, descendental in their method rather than inductive ; but they are also the faithful and humble narrators of the facts they have observed. They are the opposites of the Frenchmen. They generalise to excess. Their speculations are profound, far-reaching, coherent, and beautiful ; but the disciplinarian can descry no sufficient basis of fact, even in their own pages, for such singular superstructures.

But let there come what may over the fortunes of Mesmerism, the ingenuous student is certainly warranted in maintaining, that it is impossible for any candid

mind to refuse an earnest and prolonged scrutiny to a body of evidence that has satisfied and fascinated men of so much philanthropy, so much perspicacity, so much disposition to appeal to nature, talent so rare, and learning so vast, as are now to be found among the mesmerists of Europe. Nay, it appears to be right and dutiful to declare, that the claims of zoö-magnetism appeal no longer to the forbearance or the charity of the man of science, but to his sense of duty and right. The sacred obligations, of the critical sort, that lie upon the professed scientific leader, seem to be but ill understood in these boastful days. He should learn that he is a priest in the temple of Nature ; and feel that he stands between God's semi-articulate creation and the people. He is the appointed guide of public opinion within one domain of universal interest. It is his implicit duty to be on the watch for every new form of truth, or even important error, that reaches the horizon of the times. He should be so well instructed in the dignity of his calling, as to be exalted above the employment of anger and contempt, denunciation and ridicule, as the weapons of his cause. The world expects him to be as open as the hemisphere to ascending lights ; as charitable as the air to every coming shape, especially when appearing in something like a questionable guise ; and as cool as the catholic sky itself in judgment. Above all men he professes to know how unfixed and expansive is the growing system of knowledge, and therefore above all men he behoves to be the very soul of chivalry in opinion. The spirit of Christian chivalry is wanted in the schools. Why, if we will take every man who differs from our scientific creed for a foe, shall we not be noble enough to borrow an epithet from Emerson, and call him our 'beautiful enemy?' Let us imitate the gentle knights

of old, salute him first with courtesy in the lists of honour, cry God and the Right, and then have at him with courage, but not with rancour. Let us fight not for victory, but for truth; and rejoice to be vanquished by the hero who is dearer to truth than we. Would not so gallant and manly a procedure become us better than the obstinacy of a theory of the universe quite made up and concluded, than the sneer of imbecile discipleship to some narrow-minded master, or than the indolent conservation of the little knowledge of this 'ignorant present time?' Let us, for any sake, be generous in the entertainment of one another's sincere convictions. At all events, let us duly pay the reverence of an undisputatious examination to the cherished opinions of every large number of our fellows. Lies cannot rule them. It is only by so much of truth as exists within error that it lives and is productive. Let the ingenuous critic, then, be affectionately curious to discover what amount of saving truth there resides in every system—theological, philosophical, or scientific—that is quick enough with life to acquire a footing in the world; sure that a multitude of sincere, enthusiastic, intelligent, or even average men, are never wholly in the wrong.

It is evident that the system of statement, denominated Mesmerism in the gross, is in these very circumstances. It has won itself a standing-place in literature. Its disciples increase in numbers, intelligence, and literary power every year. In Europe, in America, in India, its votaries signalise themselves by industry, energy, and beneficent enthusiasm. To bring this plea for a fair hearing to a close, it is surely as manifest as the sun that it will no longer do for sciolists and fribbles, be they collegians or what sort they may, to push aside with a contemptuous word that huge imbroglia of alle-

gation and belief before which a spirit like Coleridge stood nine long years an eager sceptic : which opposing theologues, such as Strauss and Tholuck, discuss as an established, but imperfect science ; and which includes philosophers, men of science, physicians, men of letters, and a crowd of intelligent people, among its devoted adherents. As for those frivolous creatures, whose nature it is to sneer at every new light that climbs the zenith, careless whether it be a meteor of the moment or a perennial orb, they had best (to borrow one drop of gall from the keenest sarcast of the day), 'they had best take themselves off at once, for Nature does not acknowledge them.'

We shall now enter on the second part of the task before us, namely, the conveyance, to such as need it, of a distinct conception of the kinds of statement advanced by mesmeric authors.

It is necessary to premise a few things. The brain, the spinal cord or marrow, and the nerves that ramify from and to them, to and from the rest of the body, are united under the collective name of the Cerebro-spinal Axis. This axis may be roughly divided into three great elements : the cogitative element, the sensitive one, the voluntative ; to say nothing of the respirative, or anything still more obscure. The first is the brain, considered as the material minister of intellection, emotion, and propensity ; these coarsely defined subdivisions being collected under the representative adjective, cogitative. The sensitive element is simply the sum of all the nerves of sensation, specific and general, taken together with the sensitive columns of the spinal cord. The voluntative part of the axis comprises the nerves which subserve the exercise of will, together with the

motive columns of the cord. It should also be remembered that the nerves of sensation and voluntary motion are spread so profusely over the body, and they branch so minutely and multifariously into the structure of every tissue, that Beeland makes the striking observation that if it were physically, as it is mentally, possible to dissolve away all the bony, muscular, cellular, and vascular substance of the body, and leave the naked brain and spinal cord alone, with all their countless ramifications of nerve, there would still remain the full and shapely figure of a man; like a statue cut out of almost bodiless marble. Now it is this filamentous image which is thus shed throughout the grosser body of a man, that constitutes the cerebro-spinal axis: nay, it is this pure cerebro-spinal axis that is the veritable man himself, physiologically speaking. The bones, the muscles, the skin, the tubular vessels of all sorts, the membranes, the sheaths of the nerves themselves, the glands, the hair, are all so many supports, and riggings, and feeding-tubes, and gas-pipes, and breweries, and roofings, and ornaments of this superexcellent cerebro-spinal axis. The rest of the body is but a manifold investiture of the precious nervous system within. The axis requires to have the visible images of things brought full and clear upon it, for example; and straightway there is a little portion of its substance spun out into the form of a pearly white sheet or retina; a globe is built round that suspended surface, chambers of liquors and an optical lens are fitted up within the ball before the outstretched curtain of nerve, a hole is left in the forepart of the sphere, and a transparent sort of watch-glass is glazed in the place, the back of the retina is bedewed with a dark pigment, cordage and pulleys are fixed to the whole affair, to wheel it one way and another

like a telescope, a thousand indescribable delicacies of contrivance are superadded—and there is produced an eye. It is the same with the rest of the organs. The nervous system is the true body of the soul.

To hasten forward from these preliminary observations, and to say nothing of such minor effects of Vital Magnetism as are included in Reichenbach's researches, the numerous things described by the disciples of Mesmer may be classified under five heads. It is not pretended that the five classes, about to be defined, comprise all the statements of fact that have been adduced by these writers, but they certainly do collect and distribute the scattered heap of matter which constitutes their common creed. Our classification, indeed, is chiefly intended as a means of brevity; but, in addition to its literary convenience, we trust it will be helpful to the uninitiated reader in another way. It must be clearly understood, also, that each definition of a class is by no means closely applicable to every fact coming under that class. Each classic definition is the generic description of a multitude of recorded statements of cases. The word *rose*, for instance, as defined by the botanist, does not cover the particularities of any and every rose, but only those properties which it possesses in common with all the roses in the world: it is a generic, not a specific, and still less an individual description.

It is stated and accredited by the mesmerist:—

I. That when two nervous systems are suffered to exert their natural influences on one another, in favourable circumstances, one of these nervous systems occasionally, or rather frequently, becomes non-cogitative, insensitive, and involuntative: or, to state the thing as it more generally happens in fact, one of them falls into a state more or less approximate to such ultra-generic or

ideal condition. One of them ceases to be an individual for the time being. One of them is entranced ; the mesmeric trance being totally different from common sleep, although it may yet be found to be intimately and importantly related to that kind of death in life. The circumstances most favourable to its production, apart from nervous disease, are the existence of the nervous-lymphatic temperament in the subject of trial ; the shutting out of strong light, of noise, and, in a word, of all external forces which are calculated to solicit and keep awake the animal sense of self ; the state of interior bodily repose which follows the digestion of a moderate meal ; and the use of various manipulations on the part of the experimentalist. In other words, the cue of the operator is to cut off the solicitations of outward and internal sensation as much as possible, and then to proceed with the employment of every means he can devise for the purpose of bringing his own cerebro-spinal axis to produce its natural effects upon the less forcible axis of the patient. Sometimes, however, one imagines himself capable of subduing his superior in energy of this sort, and the intending fascinator is fascinated by the intended victim. It is supposed that, with sufficient perseverance and consent on both sides, one of every pair would pass into this sort of trance, after exposure to such mutual influences, 'with all appliances and means to boot.' This brief description is that of the total entrancing of one of a pair ; and it will be apparent to the careful reader that the language in which it is expressed is not technical in one sense of the word, while it purports to be very much so in another. It is not couched in the phraseology of the regular mesmerist, because that phraseology implies a foregone conclusion : but we have endeavoured to put it in words as naked as possible,

so far as hypothesis is concerned. In fact, abjuring the dialect of the science of Mesmerism, we have affected that of the science of sciences, or methodology. Renouncing the technicality of the pleader, we have run the risk of an excess of that of the judge. We have accordingly represented the mesmeric trance, a word that might have been dispensed with but for the carefulness of our definition, as nothing more nor less than a state of functional inactivity, into which one cerebro-spinal axis is flung by the neighbourhood and reaction of another, when the usual impediments in the way of such natural reaction are sufficiently diminished or altogether removed. Suppose some interfering force were to stop the career of a planet round its sun, an interference essential to some higher manifestation of planetary life, it would not be the less true that the natural action of the sun upon the planet is such as is fitted and intended to make it revolve; and no sooner should the interfering force be put in abeyance than the retarded planet would resume its involuntary race. Again, by the superinduction of another, a higher, though a more specific force than that of chemical affinity, the otherwise impossible frames of plants and animals arise out of the dust; but the moment the energies of that vivifying power find themselves neutralized by the circumstances in and through which it works, the inferior but more hardy agent of chemical changes reasserts its freedom, and those fine tissues crumble into dust again. Now this first class of mesmeric statements of fact simply implies that there resides a force in one of every two nervous systems, of a purely neurological nature, which is potentially capable of playing the basilisk to the other, of paralysing the other, to use the phrase in its etymological and not its medical



sense, of negating the other, in a word: potentially, but not actually; or rather, not actually in the ordinary circumstances of animal life; for there is a superinduced somewhat which is generally sufficient to preserve the weaker from the stronger, and to prolong its individuality. The weaker, in fact, is provided with an interfering force, by the aid of which it offers continual resistance to the more powerful cerebro-spinal axis, a resistance which is sometimes altogether vain, as in the case of the poor bird under the eye of the rattlesnake; a resistance, some refining mesmerists would say, which is never wholly successful, for even when no sensible approach to the trance is produced, the potent brain and nerve are sure to dominate over the feeble by the mere force of superior nervous energy; a resistance from which the only refuge is in sleep or death. It is the idea of the perfect trance, however, that has to be considered at present. All the so-called higher phenomena of mesmerism take place when this trance is incomplete; or rather, when it has been complete, but the patient has more or less partially awaked to individuality. So that, in a scientific point of view, they are in reality the lower phenomena, if they be phenomena at all related to Mesmerism, and not accidents troubling and perplexing its legitimate effects. The absolute trance, in which there is no thought, nor any possibility of thinking, so long as it remains entire; no feeling and no voluntary motion, is the highest phenomenon of the zöomagnetic force. The other appearances occur in those who are partly disentranced: and this brings us to the description of the second sort of statements made by the Magnetists. It may be conveyed in the proposition:

II. That in the first stage of disentrancement, or, to speak more classically, disenchantment, the patient is in

such a condition that a touch will awake one of his phrenological organs, while all the rest continue locked up. This is to be regarded as a stage or degree of disenchantment, notwithstanding the fact that the untouched organs are functionally bound, because the touch of the operator is unable to open even one of them so long as the patient is in the perfect trance. It seems to be a stage, the existence of which is to be inferred from the experimental test alone ; the fact that a phrenological organ answers to the touch, is the sign that the spell-bound nervous system has come out into it. The consequence of the state and the touch is picturesque. The liberated organ springs into solitary activity, unchecked, unbalanced, and untuned by the natural energy of the remainder of the cerebral organisation. When the organ, or, more strictly, the gnomon of Veneration is discharged, the patient instantly falls into the attitude and expression of adoration ; and that not only unconsciously, but with a degree of character quite inimitable by the actor, and approaching, as nearly as an everyday organisation can do so, to one's ideal of the saintly nature when under the sway of an ecstasy of worship. As soon, however, as Veneration is suffered to relapse into bondage, and the gnomon of Combativeness is set free, the seeming saint is transmuted into the effigies of a ruffian ; but if Time, Tune, and Language are played upon together, the ruffian is dissolved in song : and so forth. It is of course a condition of the possible truth of this kind of statement that Phrenology be founded in nature ; phrenology, however, not as a doctrine of the constitution of man, but only as a system of physiognomy ; phrenology not as organology, but as organoscopy. It is not necessary to the admissibility of such statements, that is to say, that the gnomon of Veneration, for instance, be the source of

all the conditions essential to the manifestation of worship ; it were enough that the gnomon in question be a source of some of these essential conditions. To take a major example, it is undeniable that the brain furnishes conditions of the showing forth of human character ; but that is a very different proposition from that which describes the brain as the organ of thought. The greater part of the world of thinkers, and that in every sense of the adjective, is of opinion that thought proceeds through the brain, not from it. A mesmerist, accordingly, who is not a materialist, but who perceives that all his phenomena are connected with the nervous system, would rationalise on this class of facts somewhat in this way : It is the nervous system that is paralysed, the spirit is intact, its activity is unwearied, it is ever ready to burst into any and every kind of action, and the instant an exit is opened in this cerebral gnomon or in that, its energies are displayed ; the music it makes being that of the instrument unsealed. Those magnetists, on the other hand, who regard their art as psychical rather than phrenological, reject this class of statements, or rather they resolve them into another, which will be defined below. The school of Mesmerism is actually divided into these three sections, so far as phreno-magnetism is concerned. Engledue is a specimen of the thorough-going phrenologist ; we take Ennemoser to be an illustration of what we would call the gnomonologist ; and Colquhoun exemplifies the psychologist in this question. It is no business of ours to enter into the merits of the controversy : suffice it that almost everybody has witnessed some of the experiments with which it is connected.

III. The third class of assertions put forth by our enthusiasts is this : That in another degree, or perhaps another kind of disenchantment, there is established a

community of sensation between the person mesmerised and the mesmeriser, or between the former and some substitute for the latter. What is perceived as a sensation by the latter is shed over to the former nervous system. The operator sips a glass of wine, and the other member of this singular pair begins to move his tongue upon his palate, opens and shuts his lips, and looks in every way as if he were tasting the generous liquor. If salt be put upon the tongue of the manipulator, the subject spits it out ; and so on. The patient will occasionally even analyse a composite flavour, and put the analysis into words, if properly managed. We remember seeing a case in which the experimentalist took a mouthful of alum-water mixed with sulphuric acid ; and forthwith the patient twisted her lips and compressed her nostrils under the distant influence of the compound abomination, muttering " It is sour ; It is bitter." The last sentence is by no means contributed even as an infinitesimal moiety of evidence in favour of this kind of thing. We distrust our unaccustomed powers of observation, in this complicated sphere of investigation, too much to attach the smallest fraction of value to anything we might say, of the experimental sort, under any of these classic heads of ours. It might have been added, that the experiment was made with rigour and scrupulosity, but not that we considered ourselves competent judges of what constitutes sufficient scrupulosity and rigour in such complex and important circumstances ; and happily it is of no moment, for the incident has been adduced wholly for the literary purpose of bringing out the distinctive character of this class of so-called facts.

IV. The next kind of phenomenon said to be frequently exhibited by patients in a certain, but as yet quite indeterminate degree of deliverance from the state

of total trance, is like the last. It is the same as the last, indeed, with something much more astonishing superinduced upon it. In reality there seems to be no sudden transition from grade to grade in this reawaking. The ascent from this Hades is not a stair but an inclined plane. One patient is prone to stop at one point, another at another, of the dim-lit spiral. The numerous cases on record are accordingly found to glide into one another, when considered from a critical point of view ; but some classification is necessary. The phenomenon allocated to this fourth class of ours, then, consists in the circumstance that not only the sensations, but also the conceptions and volitions of the operator, are transfused into the subject member of the pair. When the former sips some wine, the latter tastes it too, but that is not always the whole scope of this curious communion ; for it frequently occurs that when the mesmeriser only conceives of wine with vividness and intensity, the thought of wine is transferred to the patient. In such examples it is alleged that, the operator reproducing a lively image, say it were the image of some deceased or absent friend or foe, a faint but true phrenotype of that person is impressed on the cerebro-spinal axis of the subject in this degree of the mesmeric trance. In a word, were any pair to fall into this particular species of mutual relation in its ideal perfection, then the planetary nervous system, the patient, namely, would share all the cogitative movements of the solar one. This is called the phenomenon of double consciousness ; and the reader will now easily understand how the psychological mesmerists, as we have designated them for the sake of distinctness, refer the so-called instances of phreno-magnetism to this class. They maintain that either the operator, or some one in the room, is of necessity aware what phrenological

organ is being touched ; an act of expectation, if not of volition, accompanies this knowledge ; and, in virtue of the (undeniable) fact of common consciousness, the hope or the wish, connected with the very intention of touching this gnomon or that, is not disappointed. It is on the same principle that the staunchest members of this section of the zoö-magnetic school explain the greater portion of what is contained in the revelations of the Poughkeepsie seer. The people about him were medical men, Swedenborgians, new-light Unitarians, Mesmerists, students of such books as are contained in Chapman's catholic series, readers of popular scientific books, and particularly of that unwise work, the *Vestiges of the Natural History of Creation* ; in fine, enthusiasts, but not highly cultivated ones, men of progress but not men of substantial habits of study ; a company, however, one might say, of the half-educated laity corresponding with what is perhaps the best class of scholars now in the world. The notions of such a band, gathered into a focus within the brain of the poor lad, and, after due commingling with his native rays, reflected on the wondering retinæ of his witnesses, seem to have been the raw-material of light from which these Poughkeepsie illuminations were spun. Such, at least, is the judgment of such mesmerists as hold by the present class of facts, while they reject phreno-magnetism together with spirit-seeing, inspiration, and the like. In so far as our present purpose is concerned, phreno-magnetism is quite as acceptable as double consciousness ; but, a double consciousness admitted for the sake of argument, it certainly appears to cover the case of Jackson sufficiently well. The illiterate character of the book, even after the devoted scribe's redaction, the utter absence of either scientific or poetic method from its motley page, and

especially its want of simplicity, are all in favour of such an interpretation. But the horrid, half-digested bits of Swedenborg, Fichte's popular works done into English, Davy's incongruous dream in the *Last Days of a Philosopher*, Taylor's *Physical Theory of a Future Life*, the *Vestiges*, and Mesmerism itself, are enough not only to nauseate the curious, but also, one would have thought, to lower the pulse of the enthusiastic. This disgusting figure of speech, however, is justified only by the revolting pretensions with which the book was ushered into public notice. Considered in itself, it is a curious and even an interesting production.

V. The fifth class of those statements of fact which have been reiterated by the continuators of Mesmer, is the most startling of them all. The very supposition that it may be true, is calculated to fill the mind with awe. Even those who laugh at it, as one of the oddest of human mistakes, cannot divest themselves of the sense of its sublimity as a fiction, if it be no more. It is the large and varied set of averments included under the general denomination of clear-seeing, or, as we shall call it, far-seeing. According to all accounts it seems to be dim-seeing, rather than clear-seeing, at all events. It is dim-seeing to extraordinary distances. It is always seeing to a distance ; for, if it be true that a patient ever saw into his own lungs, or into the brain of another man, he may be said to have seen to as unusual a distance as if he had seen the inside of the moon. We speak of a shrewd fellow seeing as far through a millstone as another, although the thickness of that instrument is not many inches. Opacity is the literary equivalent of space in such an instance. English authors should accordingly write about this asserted fact as the phenomenon of far-seeing, if they wish to be at once correct and idiomatic.

It is, perhaps, a pity that a figure of speech derived from the eye was ever employed at all. It would certainly have been more scientific to have signalled the phenomenon as that of immediate perception, or some such thing: but far-seeing is good enough for the purposes now in hand.

In this kind of partial disenchantment, the patient enters easily into conversation with the person that is put in relation with him. If she is desired by the latter to inspect his liver, she does it; and she reports her findings in infantile, imperfect, but not inexpressive language. If requested to go to a neighbouring city, and discover how some friend of the interlocutor's is engaged, she will do so in a trice. She will look to India as readily as across the street, and report the Mexican War with as much fidelity and facility as she will the quarrel of a pair of gossips over the way.

'I'll put a girdle round about the earth  
In forty minutes!'

There is a society at present in a state of activity on the continent of Europe, in which they are sending their happy patients to Venus and the Moon, as well as the rest of the planets, including Neptune. The strange thing which these voluntary academicians assert and reassert is this: That patient after patient gives substantially the same accounts of the same planets, and that in circumstances where collusion seems to be impossible. Now, if a hundred patients describe the surface of Venus as something very unique, and if all the hundred give the same description, it must certainly 'puzzle the will' of the poor experimentalist! Many of our readers have doubtless been gravelled by such vaticinations. Were it our cue, we could amuse them with our own experience



of these lucid states, as they are sometimes called, of the artificial ecstatic. Our sole object, however, is to draw a clear outline of this miraculous system of statement as it occurs in books ; satisfied that everybody who is familiar with the literature of the subject, will allow these definitions to be not only moderate, but even subdued. They are very far, at all events, from being overcharged. We exclude from the classification a number of things still more unlikely, when considered from the point of common experience, than any of those which have been mentioned ; and that upon the just principle that the majority of mesmeric authors themselves do not receive, if they do not reject them. They do not fairly belong to the creed of the body of magnetic authorship. We refer to instances in which patients have been represented as sharing the memories, as well as the sensations and present consciousness of their mesmeric opposites, so as to be able to tell them what manner of life they have led ; instances in which the gift of prophecy has been said to be superadded to double memory and far-seeing ; instances of daily communion with the world of spirits, supposed to be interdiffused through that which we inhabit ; instances of patients speaking in unknown tongues, intelligible to other ecstasies ; instances, in fine, of every sort of wonder that has yet been recorded in the early literatures of the world. Before dismissing this list with a smile, it should be remembered as very curious in a literary point of view, that Zschokke, the well-known Swiss author, a patriotic politician, and a very worthy man, has duly recorded the fact, in his Autobiography, that he was the subject of double memory several times in the course of his life. Without any preparation or expectation on his part, he several times fell into relations, now with one person, then with

another, of such a sort that he seemed to remember by-gone years for that person as well as for himself. Never having seen or heard of them before, he suddenly became the participator of their past experiences, in so far as these were connected with memory ; and he often put it to the test by asking them if so-and-so had happened to them, at such-and-such a place, in this-or-that year ! For particulars, the reader must have recourse to the pious and excellent story-teller's own delightful pages. It is but fair, in the meantime, to give the ultra-mesmerists the advantage of such support as is to be derived from the wide-spread reputation, the undoubted ability, and the acknowledged probity of the celebrated Swiss.

Such, then, are five kinds of phenomena, affirmed to be very frequently produced by the natural influence of more energetic nervous systems upon feebler ones ; the perfect trance, the phreno-magnetic trance, the trance of double sensation, that of double consciousness, and that of far-seeing ; to which may one day be added that of double memory, to be put before the last one ; that of prediction to be put after it ; that of spirit-seeing after the manner of Swedenborg next ; and then that consummated ecstasy, in which the blessed subject of enchantment shall seize the universal speech of heaven !

But now the question is, Will you believe all these five things ? The reader is perhaps disposed to ask us if we believe them all ourselves ? Nor is the answer far to seek. It is briefly and distinctly as follows.

Let the first of the classes be kept apart from the other four, and we do not believe these four, the higher phenomena as they are called, from phreno-magnetism to far-seeing inclusive, in the manner in which we know

and believe the received composition of water, the demonstrated distance of the sun, or any of the accredited truths of positive science. It has been shown that the magnetists themselves are by no means agreed about phreno-magnetism, so that a mere scientific spectator is more than warranted in suspending his opinion. As for the remaining three classes, if that of double consciousness be once admitted, not only is that of double sensation explained by it, but also so large a number of the facts recorded under the head of far-seeing are rendered conceivable by the admission, as to bring the exceptions under suspicion. The phenomenon of double consciousness itself, however, would remain undisposed of ; and still less like other things in the universe of human knowledge than ever. Notwithstanding our inability to accept these four classes of so-called facts, as they at present stand in the literature of science, let it be clearly understood that we do not reject them ; we do not disbelieve them ; we only do not believe them. We do not pronounce them ridiculous, nor assert them to be the results of imposture combining with coincidence. We only think them not proven, nor even rendered likely.

The degree of evidence necessary to produce conviction regarding allegations so stupendous, is very difficult of access indeed. It must be enormous in quantity, it must be unquestionable in quality, it must be accumulated by the most skilful and patient investigators, and it must be co-ordinated with infinite precision. Not only are such statements too extraordinary and astonishing to be admitted by the scientific mind without astonishing and extraordinary testimony to their correctness, but the inquiry is so frightfully complicated with physical, physiological, hyperphysical, and psychological perplexities, that it probably surpasses in complexity every subject

that has yet been attempted. With these profound impressions of the momentous and marvellous nature of mesmeric statements of fact, familiar with the well-known difficulty of properly observing and truly recording the simplest new facts even in unmixed physics, and feelingly aware of the peculiar and very numerous fallacies and impediments which waylay the footsteps of investigation in this particular department, we are content to be sceptics in the sense of being considerers. Hanging over all these allegations in a state of suspense, the requirements of our understanding are not satisfied with the acceptance of them ; but there is so much coherence among the descriptions of many and widely diverse authors on the questions in which they are involved, the majority of these writers are so sensible and calm, and there is such a world of good faith apparent in the higher literature of the whole subject, that we cannot set all these things aside as either the baseless fabric of a visionary school upon the one hand, or as a tissue of cunningly devised fables on the other. As students of Methodology, however, we think ourselves competent to express the opinion that there does not yet exist, in the published and well-known records of Mesmerism, anything like a digest or induction of unexceptionable, orderly, and carefully unfolded experiments, such as is demanded by universal consent in the other sciences of nature. We repeat, then, our decision that the whole case is not proven ; and the happiest thing that could befall the destinies of Mesmerism would be the appearance of a truly great thinker at the head of the cause ; a thinker as simple and ingenuous as Spencer Hall, possessed of experimental skill as remarkable as that of Reichenbach, as good an anatomist as Engledue, a physician of originality like Elliotson, as subtle and pliant a metaphysician

as Coleridge, as learned in all things as Eschenmayer, as devout as Tholuck, as inventive as Strauss, and as clear in the literary expression of his results as Harriet Martineau. As soon as such a man shall begin to devote a lifetime to these involved and reinvolved inquiries, we shall begin to become sanguine of the palpable solution of them in one way or another. In the meantime, let the present investigators of zoö-magnetic phenomena study with diligence the best models of research, and combine with order and steadfastness for the production of purely experimental works, capable of producing scientific conviction.

There is, however, another sort of conviction than that which is scientific in its origin and scope. For example, a student may be powerfully impressed with a sense of the truth of the very four propositions of fact now under discussion, after having gone through a great deal of candid case-reading, or after having witnessed a multitude of apparently searching experiments; and yet feel obliged to confess, to himself and other inquirers, that his conviction is by no means methodical or scientific. Such seems to have been the position of Treviranus, when he assured Coleridge that he had seen such things, at mesmeric sessions, as he could not have believed upon the authority of his English interlocutor; and added that he accordingly did not expect them to be believed on his own testimony. Yet it is this sort of unaccountable conviction that carries the day with the vast majority of people. It is a forefeeling of the truth, not a perception of it; and that forefeeling may, in any given case, be an emotive illusion; just as the demon of the delirious patient is a sensuous one. Science puts no confidence in such forefeelings, such irresistible impressions, such convictions. It demands a clear, copious, and

unexceptionable comparison of instances ; but it must, at the same time, be confessed that it is only the man who lives and labours under the influence of this very sort of emotive conviction that will ever accomplish the triumph of an inductive demonstration in this case, or any other. All the great discoverers in history have proceeded in that way. There has always been, first, the forefeeling of their new truths shed into them from the surface of evidence most insufficient ; then there has followed the life of consecration and toil ; and then the attainment of an omnipotent scientific conviction, for themselves and for the world. The mesmeric reader will, accordingly, be pleased to regard us as somewhat hopeful though inexorable inquirers, rather than bigoted sceptics ; even while we speak of some fifty years of continued and better-conducted investigation being the condition of the scientific spectator's pronouncing a definitive judgment on the questions at issue. At all events, if they think our demands upon their evidence exorbitant, they must just be reminded that their demands on our belief are altogether exorbitant too. At the same time, we implore the neophyte to be invincibly diffident of coming to a decision in favour of the four classes of factual statement at present referred to, under the suasive force of anything short of absolute scientific compulsion ; for our whole philosophy of nature and of man will require to be revised, as soon as they are admitted into the canon of accepted truth. Remembering that it were quite as unwise, however, to cover them with ridicule, or to visit them with angry denunciation, let us preserve the awaiting scepticism of just-minded men.

All this, it must be understood, is applicable only to the last four of our five classes of mesmeric statement. There remains the first of them, namely, that which con-

tains the fact of the unbroken trance. We call it the fact of the trance without any hesitation, for it seems to be fairly and for ever established as a fact. It is easy of observation. It is not complicated with the possible phenomena of illusion. It is not difficult to put it to the test of crucial experiment. It has been repeated a million times and more. Almost everybody has seen it. Nobody questions its occasional occurrence, whether it be called the state of hypnotism, that of magnetic sleep, or that of mesmeric insensibility. People of world-wide reputation have gone into it, such as Agassiz and Harriet Martineau; and they have attested its reality. The most painful of surgical operations have been performed on patients thrown into this trance, which is at least as profound as the kind of insensibility produced by ether and chloroform. Dr. Esdaile has set the question of its existence and its depth for ever at rest; if his guarded and unexceptionable testimony were necessary. It must be regarded as a settled thing, and now for its explanation; for, whenever a new fact is clearly and irreversibly made out, it behoves the scientific critic to assign it a place in the system of things. For the sake of the intellectual exercise, if for nothing else, let us endeavour to put this one in its niche.

The fact itself is simply this: When two cerebro-spinal axes are brought into circumstances of relation, propitious to the exertion of their natural influences on one another, one of them frequently does (and, if care enough were used, probably always would) fall into a trance vastly more profound than the soundest ordinary sleep; in which it is insensitive, involuntative, and non-cogitative. Is there anything abnormal in this? Is it unlike the rest of nature? Might it not have been anticipated? Why, when two celestial bodies are brought

to bear on one another, what transpires ? One of them, the feebler in stellar force, becomes astro-negative to the other, passes into the state of motion round the other in the natural state of rest, and forms a double unity with the other, in which their primary functions are the true opposites of one another, namely, motion and rest. As soon as two chemical atoms are placed in similar circumstances, that is to say, in atomic neighbourhood, there takes place a similar induction of opposite states between them, and a third somewhat results from the union of the atomo-positive with the atomo-negative elements of the pair ; a somewhat which is neither, and yet both at once. When pieces of zinc and copper are put in contact, the copper is instantly struck into a state in which it is metallo-negative to the zinc. Suppose a slip of copper in the very process of being dissolved in a chemical menstruum, let it be touched with zinc and it ceases to display its susceptibility of solution. The chemical activity of the copper is instantaneously paralysed. It is in a chemical trance.\* Now, suppose it for a moment to be possible that one nerve of sensation should become neuro-negative to another nerve of sensation ; suppose it possible that one nerve should be able to induce an opposite state upon another, and that by simple nervous neighbourhood ; suppose it possible that one nerve should fall into the same relation to another as copper sustains to zinc in the metallic pair, as hydrogen to oxygen in the atomic pair, as the moon to the earth in the stellar pair, what state would be superinduced on it, the nega-

\* We do not by any means wish such words as *metallo-negative*, *atomo-positive*, *astro-negative*, to be introduced into the vocabulary of science. We should detest them as much as anybody else. They are employed in the present emergency solely to subserve the passing literary purposes of the paragraph.



tive one of the pair of supposititious nerves, namely? in other words, through what quality in the nature of nerves should one nerve of sensation, for instance, manifest the fact that it were negative to another? Doubtless through its primary quality, its individuating quality: the rest of nature is unanimous in response. That quality, when predicated of a nerve of sensation, is sensitivity; of a nerve of voluntary motion, it is voluntativeness; of a nerve of thought, it is cogitativeness; using these awkward words to express the shares contributed by the mere nervous system towards the showing forth of sensation, volition, and thought. To return, then, to our provisional supposition, and to specialise it: Suppose that one optic nerve could, in the nature of things, be suffered or made to fall neuro-negative to another optic nerve, and it is clear that it would pass into a neurological state, so far as its differentiating quality as a particular part of nature is concerned, the direct opposite of that natural or positive state in which the other would remain. It would instantaneously fall into a state of insensibility to the specific action of visible bodies. It would be struck blind. But let it be supposed, furthermore, that not only the optic nerve, but also the whole of the sensitive, voluntative, and cogitative constituent elements of one cerebro-spinal axis were to fall neuro-negative to the corresponding parts of another nervous system, it is evident that the former would lapse into a genuine trance or suspension of all its functions as a nervous system; in other words, into the magnetic sleep, which is the very thing to be explained. It is in this way, in conclusion, that we propose to co-ordinate the fact of the true mesmeric trance with the rest of the system of nature, by bringing the conception of it, name-

ly, under the idea of polarity, under the law of dualism, under the binary theory of the phenomenal.

This will not appear to be a rationale of the phenomenon under discussion to such as expect the ultimate reason of a thing in an explanation of it. But there are no ultimate reasons in inductive science. The law of gravitation, as it is generally called, is not the ultimate reason of celestial movements, for example. It is simply the statement of these phenomena, abstracted from all details, unadulterated with any spurious hypothesis; and then presented to the experimentalist, the observer, and the computator for the discovery of its conditions, proportions, and specific manifestations. The same sort of sentence has to be pronounced upon the law of chemical induction and neutralisation, as well as upon those of electrical and common magnetic induction, and so forth. The astronomer is not only incompetent to assign the ulterior cause of the approach of a planetary body towards its sun until it come within a certain distance from it, when it proceeds to revolve round it in that elliptical line which is the resultant or resolution of the inexplicable force which draws it towards the solar centre, and of the equally inexplicable force which hinders its going nearer that centre than any one of all those points which make up the ellipse in which it moves; but the inquiry into the essential nature of these co-operative forces is quite out of his sphere as an astronomer. The mind perceives and can find out no last and inevitable reason why oxygen and hydrogen, brought into the requisite atomic neighbourhood of each other, should unite in order to the production of that similarly inexplicable tertium-quid, a molecule of water, the resulting unity of its two coefficients. Nor can anybody declare why or how the simple contact

of zinc and copper should induce states in them so opposite that the chemical energy of the former is exalted, while that of the latter is rendered equal to nothing. It is in a manner precisely analogous that the zoö-magnetist is unable to state, and is incapable of ever describing, how it is that, circumstances being favourable, one nervous system should precipitate another into a condition of what may be called physio-psychological nonentity. The cases are truly parallel; and all that has been attempted, in the foregoing paragraph, has been to place the phenomenon now considered in methodological connexion with those of the physical sciences adduced: and it now behoves the experimental mesmerist to determine the conditions, the ratios, and so forth, of this new and most important species of induction.

And this view has been intuitively hinted at during the whole course of Mesmerism in history. The magnetist has always been surmising the existence of another kind of imponderable fluid, analogous to magnetism, electricity, and their congeners, in order to explain his phenomena, that is to say, to bring them into coherence with the rest of our physical knowledge: and that from Mesmer down to Reichenbach. The very phrases, animal magnetism, vital magnetism, zoö-magnetism, and so forth, are the indications of the fact. The scientific instinct, working obscurely within these adventurous observers, is never done pointing, like another magnetic needle, to the necessity for a new plus and minus, a new positive and negative, a new mode of polarisation, in order to the conceivability of their allegations; and they imagine they have found what is wanted in some unheard-of magnetical fluid. From the very birth of languages, the air has been a favourite

similitude for spiritual powers ; a similitude so cogent as to have frequently become almost identified with that which it has been taken to symbolise. In more recent times, the conception of the air has been refined upon and subtilised into that of an imponderable fluid, for the purpose of explaining certain physical phenomena. Witness caloric, light, electricity, and the other hyperbolic auræ of modern science. The error of the poetic childhood of humanity is repeated in his scientific youth ! The latest movement of physics, however, is towards the rejection of those creatures of the immethodical mind. Sound thinkers begin to see that they are mere idols. Vibrations and vibratiuncles are now taking their place ; the new conception emanating from the analogy of sound, the vibrations of which appear to be visible to the eye, as well as potential in the ear. In fine, the physicist is able at last to look at bare facts, without investing them with beggarly shifts. Yet this victory of naked truth is slow as well as sure. The Newtonian mode of stating the fact of gravitation was once abused as mystical, whereas it was precisely the reverse. It was those fluid-mongers who were the mystics then, as they are now. They invent, they know not what, in order to escape the dire necessity of confronting pure force face to face. They cannot think that common matter is sufficient for its own energies, and therefore they project a family of matters-extraordinary for the purpose. One might well wonder if these ghost-loving schoolmen ever inquire whether a series of subter- or super-fluids be not needful for the sustaining of their favourites from the invisible world. Since the calorific fluid must be devised for the sake of expanding solids, liquids, and gases, it is surely the next necessity of the case to devise something else to produce the expansion

of caloric. But super-caloric, as this second creation of the calorician's 'heat-oppressed brain' would fall to be denominated, must likewise be provided with an expensor, a super-super-caloric; then this double-superfine imponderable were just as needful of an actuator as the original caloric himself; and so on in an interminable series, as appalling as it were fantastical:—

What! will the line stretch out to the crack of doom?  
Another yet?—A seventh?—I'll hear no more.

Nay, but caloric is self-expansive, the lingering disciple of Doctor Black will urge. Well, is it not just as simple, and far more direct, to affirm that the gases are self-expansive in all conditions, while liquids and solids are self-expansive under conditions which are very determinable? The fact is, that solids and liquids are potentially self-expansive bodies, in which the self-expansive tendency is overcome by the contractive energies of nature, gravitation and cohesion; precisely as a plant or an animal is, chemically speaking, a putrefactive body, in which the tendency to fall down into putridity is overcome by the superior force of vitality. The instant a living substance ceases to be the subject of the upholding power of life, it succumbs to those inferior forces which melt it down again into the rest of nature. And the moment a solid or a liquid body is relieved from the constraint of cohesion and gravity, it expands.

This mode of affirming the influence one cerebro-spinal axis possesses over another, should, accordingly, by no means repel those mesmerists who are watchful of the tendency of science towards a dynamical view of all natural phenomena; although, with the exception of the ultra-psychological section of their own school, they have been hitherto hankering after some mysterious

fluid, supposed to pass from the operator to the patient, or from the patient to the operator. The gist of the argument, which is now pressed on the attention of these enthusiastic investigators, is simply to the effect, that there not only is no necessity, but that it is also bad methodology, to have recourse to the mystical generation of airs, auræ, winds, afflatus, wareens, animal-magnetic fluids, new imponderables, or other nonentities, in order to bring the phenomena of Mesmerism within the range of intelligibility, that is to say, within the pale of recognised analogy. As to the rational grounds of the zoö-polar force, of vitality proper, of chemical affinity, of common magnetism, of cohesion, and of gravity, they are beyond the reach of science altogether. In a word, the rational grounds of things lie out of the province of a merely scientific methodology. They belong to the possible domain of philosophy, properly so called: but it is a domain not yet begun to be realised in any direction; and probably not realisable until after the discovery of a new philosophical organon, more potent than the syllogism, the process of induction, or the doctrine of antinomies. In the meantime, the man of science must willingly confine himself to the study of phenomena alone, and beware of perplexing the world with impertinent nothings or ludicrous impossibilities.

Returning to the subject more immediately in hand, the inquisitive reader may demand a secondary explanation; a rationale, namely, of the too indubitable fact that such entrancings as have just been discussed, are not constantly occurring and interrupting the business of the world. How is it that, when one-half the world shakes hands with the other, the less fortunate of the halves is not plunged into this deepest of sleeps? Nay, how is it that the whole splanchnic or sympathetic

system of nerves in the former does not likewise fall neuro-negative to that of the latter ; and the heart, lungs, stomach, and other vital organs, consequently cease to play their all-important parts in the drama of animal life ? How is it, in fact, that one-half of us do not strike the other dead, like the basilisk of ancient fable ; and the residuary demi-humanity divide itself again and again in fatal fascination, until the last man be prematurely left alone ? The question is hardly fair, yet the reply seems to be obvious. It lies in the peculiar characteristic of a nervous system, as contrasted with any other thing in nature. A nervous system is reactive upon or sensitive of the movements of all the rest of creation. So is a sun, so is a planet, so is an atom : the disturbance of the smallest mote disturbs the universe. But a nervous system is more : it is sensible that it is sensitive of the motions of things. It is sensitive of itself. Were it not so, the query might well arise, Where does the body of a man end, and the rest of nature begin ? Are the bones, are the nails, is the cuticle, is the hair, the body ? Is the whole of nature not the body of the soul ? No, because the sensation of his sensations sculptures a man out from the rest of nature : and he walks abroad the paragon of animals, as well as a denizen of the supernatural world. Nor is his (merely animal) individuality left at the sport of polarity. It is protected from that otherwise inexorable law by the myriad of sensations which shower down on the periphery of his cerebro-spinal axis from external nature, as well as by its own innumerable movements of volition and thought ; while the respiratory and sympathetic nerves are solicited day and night by the pressure of the blood at the heart, the touch of venous blood at the lungs, and so forth. The nervous system is kept awake

by the inpouring and outpouring tides of ceaseless sensation. Hence it is, perhaps, that the negative polarisation of the sympathetic and respiratory is impossible, and that of even the axis difficult and infrequent. These are possibly the reasons why the nervous-lymphatic temperament, on the one hand, and a powerful well-balanced nervous system on the other, freedom from the digestive process—everything that is monotonous, in the figurative as well as in the literal sense of the adjective—and the cutting away of as many as possible of the individualising agencies that act upon the expected subject, are propitious, and even more or less necessary, to the production of the phenomenon now criticised. Such, then, is our theory of the trance. It is the conception of two cerebro-spinal axes, of different degrees of energy, brought into the relation of dual unity; the one being conceived of as neuro-positive or solar, the other neuro-negative or planetary; the former corresponding with zinc, the latter with copper.

If these observations had not already extended to so great a length, we should have been glad to assail the other theories of the trance that have been laid before the world, and to defend this one with more particularity and detail. Suffice it at present, if anybody were to bring forward the self-induced hypnotism of Mr. Braid's subjects, to remark that nothing is yet known of the distances at which one nervous system can become negative to another; and that the steady contemplation of a bright or particular point may only concentrate the circumstances favourable to a person's being unconsciously entranced by another in the same room or house. The objector must also remember that every man is possessed of two brains, two spinal cords, two systems of nerves for sensation, and two for voluntary motions, although



of only one splanchnic or visceral system. Each of us is composed, in fact, of a pair of cerebro-spinal axes, and one of them is always a little different from the other. The more alike they are, the more regular the features, and the more insipid the character in general. In the dreamer, the seer, the poet, the philosopher, the man of prowess, there is always a visible inequality between the two brains and nervous systems, which are thus sheathed in the skin and outer body of what is called a man. The Greek sculptors never pretermitted this fact: they knew it probably without reflection; and they expressed it without hesitation. An excessive difference, on the other hand, seems always to be the gnomon of a violent and eccentric nature. Be the meaning of these hints what it may, however, each of us is, speaking physiologically and in sober reality, what one of the classical characters in British poetry is said to have been in an ideal sense of the words. Each of us is 'two single gentlemen rolled into one;' and we venture to surmise, if not to suspect, that not only the hypnotism of the Manchester patients, but the common blessed sleep of everybody else, is in reality connected with this sort of polarity: but from these fascinating subjects we must now refrain.

But what if all the four classes of allegations, which have been dismissed above without very much ceremony, turn out to be true? What if they only await the slow-sure revolution of the scientific year? The simple trance was long disputed, and even scouted, but it is now an indubitable fact. Is it not at least possible that clear-seeing, and all that sort of thing, may also become established on the accumulated experience of the ingenuous? The Hours alone can bring the answer to such eager questionings as these. As soon, however,

as the observers shall have done their part of the work, and set the factual department of the subject beyond contention, we are ready to essay our own as critics; for it is our conviction that the theory of polarity is competent to the explanation of all the higher phenomena of Mesmerism, supposing them to be true. In the meantime, it is necessary and sufficient to point out, with forefinger as firm as iron, the most important consideration, that, whether the phenomena in question ever be made out or not, the circumstance can have no earthly relation with the majority of the wonders of the New Testament: and that for this one overwhelming and conclusive reason:—That the seers, healers, and wonder-workers of the Gospels and the Book of Acts are not the negatives, but the positives in their respective pairs, if they be anything. It is not the patient that shows forth the marvellous latencies of the nature of man in the most significant of these sacred instances, but the operator; whereas it is the very reverse in the mesmeric couples. This single circumstance, in fact, differentiates those particular cases once for all from the mesmeric phenomena; and announces their belonging to another sphere of the hyper-physical altogether.

The subject of Mesmerism, considered as a literary phenomenon of the present day, has now been criticised from the scientific or positive point of view. The multitudinous statements of fact in the science, as held by the majority or average of its expositors and students, have been somewhat summarily classified under several heads; the so-called phenomena, collected and separated in those classes, have been then described with as much individuality and precision as such a plan of procedure admitted of; and a scientific judgment has been pronounced upon

the external evidences of those phenomena, certainly not without either candour or care. The first of our classific headings distinguished and separated the great fact of the simple trance from the alleged phenomena of phreno-magnetism, community of sensation between the mesmerised person and the operator, community of consciousness, and far-seeing in all its varieties. The trance was admitted : the other things were, each and all, refused admission into the crystal sphere of positive science ; and that on account of their appearing not to be extricated from the chaos of averment and opinion with anything approaching to the nature of inductive rigour. The higher phenomena were all relegated to another day of judgment and to other judges, being undoubtedly not proven in their present condition.

The ingenuous reader may observe, however, that we by no means commit ourselves against those avowed phenomena. It is impossible to prove them false in the mass. The evidence in their favour is already so various, so luminous, although also so nebulous and dim, as to have left a profound impression of their essential truthfulness upon a number of well-cultivated minds in Europe and America. Such an impression is not by any means a scientific conviction, but it may possibly be the shadow and prophecy of some future demonstration. For our own parts, we have no wish that such things as clear-seeing should turn out to be true ; but we shall not wonder if they do. Such an event, indeed, would be a grand and exhilarating surprise. It would shake our wine of thought upon its lees. It would agitate our too solid theories to their little centres. It would force us to think anew. Like all good news at all deserving of the name, it would sound a reveille in our dull ears ; and we should perhaps awake, not only to subdue the

new facts to the dominion of the intellect, but to lay a lordlier grasp upon the whole dominion of Nature. It is at the same time a matter of indifference to us whether the school of Mesmer ever do mankind so great a service or not ; for futurity is rich, and one array of upstarting and imperious new facts will serve the purpose as well as another.

Suppose, however, as we have said already, that those fond investigators are really destined to triumph over the enormous difficulties that withstand them. Suppose that they shall make good their four or five apparently eccentric points of fact, at some more or less distant day. Let us imagine that the statements which are every day reiterated at present by the adepts in Animal Magnetism, in the impatient hearing of contemporary science, are actually and undeniably facts ; and not a horrid imbrogllo of truth and error, open-mindedness and imposture, courage and humbug. In that case our theoretical position in Nature were somewhat erroneous, and would require to be altered a little ; for it should then behove us to find a new centre, from which we might see the strange new facts to be neither eccentric nor strange, but as harmonious as the planets, and as homely as our daily bread.

That which we at present propose to do, then, is to find that right centre within our sphere of surrounding facts, supposed to be altered by the admission of a whole constellation of very questionable new ones. It is an imaginary problem that is now proposed for solution ; and it is to be solved for the sake of the intellectual exercise. We are, in short, to suppose that Mesmerism is true in all its commonly received details ; and then, to explain it, we are to weave a hypothesis which shall include the wonderful statements of the magnetists in its

ample folds. We are to find some principle or other which could give coherence and unity to all the marvels which have been recorded about double consciousness and far-seeing, since it is quite possible that they are really matters of fact after all.

The chief temptation to this somewhat illegitimate enterprise is not, by any means, the still less lawful hope of being ready beforehand for the wildest possibilities of psycho-physiological science, nor yet is it the love of an opportunity for the illustration of the laws of procedure, according to which a methodical hypothesis or truly scientific guess should be constructed. It is undertaken mainly, if not solely, for the sake of allowing our minds to disport themselves a little while upon the *summa capita* or topmost tops of solid, though sky-piercing science. The pure, keen air of these neutral regions, equatorial in their place but polar in their temperature, will dissolve away the grosser adhesions of that nether atmosphere in which we are content to toil at the quarry of concrete fact ; and it will brace us for another day of work. These figures of speech, however, remind us that, just because this is a summer evening's foray, it must not be too much prolonged ; for our great Taskmaster is jealous of the idler, and he cannot tolerate the self-oblivious sportsman in his forests or on his highlands. Let us, then, gird ourselves at once, sally forth with footsteps firm and swift, and return before the twilight has melted around us into night.

It must be remembered on the threshold, of course, that there has already been offered a hypothesis in explanation of the simple or completed trance ; a phenomenon which has been accepted as undeniable. That hypothesis brought the trance under the same idea as is

numerously exemplified by sun and planet, oxygen and hydrogen, zinc and copper ; by the poles of the magnet, the galvanic circle, and the electrical battery ; by unity and multiplicity, and so forth. In order to consistency, therefore, it is necessary to carry the same law into the region of those higher phenomena of Mesmerism, which we are now to discuss as if they were natural verities. The hypothesis which we may now invent for their explication and classification, must consist either in a proposition directly deducible from the law of polarity, or in a composition between that law and some other one ; else we shall be guilty of the solecism of proclaiming an *imperium in imperio*, or couple of Senates, in this our imaginary domain. The charitable reader must furthermore understand, once for all, that throughout these few pages we shall continue to treat of Nature, commonly so called, from that point of view which is occupied by the understanding or judgment according to sense. It is not, indeed, our custom to contemplate the world of sensations from that position ; but the exoteric doctrine concerning these wondrous shows, which is dictated by the spirit of the passing times, is good enough for our present purposes. Gratefully availing ourselves of the language of the sensuous philosophy, as being both a convenient and an admirable formula, we proceed to remind ourselves of a few well-known propositions in natural science ; and that by way of premises to a subsequent argument.

I. Every phenomenon, that is to say, every change, that is to say, again, every movement, transpiring in any one part of the sensible universe, is followed by an unending series of phenomena in every other part of that universe, all proceeding from the original mutation. Nature is so full as to be incapable of holding another

particle more ; and all her hosts of particles are so compacted together that the annihilation of one of them would leave her loose. The removal of a single atom from the world would alter its centre of gravity ; and the shock would be felt by every separate part and pendicle, as well as by the whole. All things propagate their permutations to one another. The creaking of my table, the scratching of my pen, the running of my ink, the thrill of my manual nerves and muscles, the vibrations of my brain in thinking this very thought, are all reverberated from the centre of the planet Leverrier beyond Uranus, as well as from the intimate recesses of the bodily organisation of Leverrier the calculator at Paris ;—if we could only hear the echoes ! The vault of heaven is one vast whispering-gallery ; but only for other ears than ours. Enough for us that we can overhear the secret with the organ of the mind ; and that there is no auditory illusion in the case, as there certainly is not. The proposition now under consideration has never been disputed, at least since it was enunciated aright. It has long been one of the catholicons of science. It was a favourite thought with Leibnitz. Babbage, the prince of modern Ishmaelites, has expatiated with friendly eloquence upon this universal relationship and concord of things, in his ninth Bridgewater Treatise, sarcastically so entitled. In fact, this law of universal and unlimited action and reaction is one of the most stupendous, although also one of the simplest of the revelations of physical science ; and it is all the more profoundly interesting that it is the bodily expression and symbol of another law, still more interior and humane, as well as still more penetrative and divine.

II. The same universality of sympathy is repeated

- within the confines of the cerebro-spinal axis of man ; and, in fact, it is then and there alone that it is properly denominated sympathy. The nervous system is a sort of bodily soul underlying, diffused through, and organic of the grosser body of the animal form. The totality of the human person or mask, from the midpoint of the brain to the cuticular periphery, with all its pores and hairs inclusive, was held in reverence by the pious schoolmen of a bygone age as the Microcosm, standing over against as well as within the Macrocosm ; a little world within the large ; the beauty of the universe in miniature. For it was not long till thoughtful men, once their eyes were effectually opened on the outward world, perceived that man is an epitome and illuminated version of all the powers of nature. The spiritual-minded seers of a far earlier epoch had seen still deeper, and discovered his soul to be the express image of God. It is accordingly easy to understand the doubled insight with which a Platonising divine like Henry More observed, in the twilight of ancient philosophy and modern science, that the composite personality of man is ‘ a medall of the Deitie.’

The law of inevitable reciprocity of movement is as cogent among the parts of the microcosmical universe of the human frame, then, as it is among the members of the macrocosm, that hundred-handed Briareus, that ocular Argus of antique fable. A sensation, or any atomico-physiological movement ordinarily followed by a perceptible sensation, in or at one nerve, is unavoidably shed through every part of the system. It is a curious and beautiful, although also a deducible circumstance of this sympathy, that each nerve receives the shock, originating in another one, in its own intimate nature, and reproduces or re-echoes or propagates it through its own proper



function. A sudden pang of agony in the tongue is seen by the eye, heard by the ear, and so forth. The things which limit and obscure the perception of such transmitted sensations in actual life, will be considered under another head. In the meantime it is to be particularly noticed that, apart from those circumstances of limitation in the concrete animal frame, every single portion of the nervous system must suffer the influence, or rather the effluence, circumambient from an original movement in any other portion, to pass on in the endless journey through the pathway of its least contingent and most individual property. It is the same throughout the whole of Nature. A phenomenon originated anywhere is carried round the universe by a mineral through its cohesion, by a plant through its irritability, by an animal through its sensibility, by a muscle through its specific contractivity, by a common nerve through its sensitive or volun-tative quality, by an optic nerve through its capacity for sight, and so forth. An optic nerve, indeed, when subjected to the action of fire or caustic, is chemically decomposed ; but it is by no means as an optic nerve that it is so affected ; it is simply as a given chemical compound of such and such elements that it is burned. So long as it is an optic nerve, properly so called, and to the extent in which it is an optic nerve and no other *tertium-quid* in existence, it only sees fire, or else flashes fire, in such circumstances. It follows, therefore, from all these considerations, that if there were two mouths, for example, in one organism, every taste perceived at one of them would be handed over as such to the other ; always supposing for the present that there were nothing to set bounds to the practical working of the law of sympathetic sensation. There is a very significant thing connected with this fantastical conception of a man with two

mouths, deserving to be indicated and remembered with more than ordinary care. The half-written page is before my eye; pulses of white light rush from all its surface, except where the black ink has fallen, to the outside of my retina; an image of the manuscript is painted on that expanded sheet of nerve; and the writing is seen, we know not how. All that can be said in the matter, according to the methodology of after thought, is this; that such an image on the retina of a healthy eye is invariably followed by the perception of the thing that is imaged. But since the optic nerve and thalamus, since the brain, are essential to a healthy eye, it is perhaps not easy to resist the supposition that the image of the retina is propagated inwards to somewhere that it meets the mind. Hence the Hartleian theory of sensation, so long cherished, with some modifications, by the Scotch psychologists; and hence also the Helvetian and other forms of materialism, which the doctrine of Hartley degenerated into as soon as the scientific public would suffer the play of Hamlet to be performed before them without the Prince. For our own part, we are clearly of opinion that, if the matter is to be considered from this external point of view at all, the Hartleian formula is very good so long as it is confined to sensations and remembered sensations, including of course whatever sensational manifestations may accompany pure emotions and ideas. The word Vibration, however, must always be understood to be no more than an algebraic sign. Upon these conditions and from this point of view, it is not only allowable but correct to assert that the perception of any object over against the eye is produced, in so far as the physical mechanism of the process is concerned, by a neurological movement begun at the external surface of the retina and propagated from without inwards. When on the other

hand I remember, or conceive of the paper I have scribbled over with my pen, the neurological movement essential to the conception of the writing is not begun at the outside of the retina but somewhere else, no matter where ; and it is propagated from within outwards. The written page of memory is the reverse of that of perception ; that is, in this physiological respect. It is more faint, sensuously speaking, than that which is under the very eye. In fever and preternatural activity or insanity of the organ, the feeble image propagated from within outwards in the act of memory becomes so forcible as to simulate the nature of an immediate image ; and there is developed the phenomenon of sensuous illusion. With these subjects, however, we have nothing to do at present, except in so far as the following curious consideration is concerned. If the indulgent reader will bring our two-headed monster before his mind's eye again, he will at once observe that the atomico-physiological movement (corresponding with the taste of anything) begun at one of its mouths, and propagated from without inwards, will be carried from within outwards to the other. It will reach the secondary palate like the memory of a taste, shadowy and ghost-like ; always supposing that palate not to be so morbidly sensitive as to convert the remembrance of a sensation into a palatal illusion.

III. The individuality of man, as an animal shape, is produced and sustained by those overflowing currents of sensation of which he is the subject. He is isolated from and within that world of external appearances, of which he is the centre according to the truth of appearance if not according to the truth of reality, by sensation. But it is not by the sensations produced in him by stars, or sea and land, or heat and cold, or flowers and fragrance, or the persons of friends or lovers. Were there no other

sensations than these, he could not discriminate them from his animal self. They would all be parts of him, and the whole of Nature were his body, on that supposition. It is by his sensation of himself, as we have already remarked, by his sensation of his sensations, that he is sculptured out from the rest of Nature. *Perceptio est sensatio sensationis.*

IV. Not all sensations are perceived. It is more exact to say that not all atomico-physiological causes or usual antecedents of perceptible sensation are actually felt as sensations, that is, perceived. One sensation, so to speak, neutralises another: one is homœopathic to another: concurring sensations are oblitative of one another. Then the perceiving mind can bend its attention in only one direction at one and the same time. Archimedes absorbed in the contemplation of a problem is deaf to the clamours of a successful siege, blind to his Syracuse in flames; and he might have died under the sword of the soldier, who surprised him in his study, without a pang. It is on these two accounts that sensation is limited in fact, and man is physiologically finite.

V. The last observation is vastly enhanced in its importance when it is considered that it is not only a legitimate, but an unavoidable corollary from the first two of these propositional paragraphs; that the whole universe of unreposing external phenomena is potentially, though not actually, seen by every optic, heard by every auditory, felt by every tactual nerve of beast or man. This curious proposition does, we say, corollate or raise its head like a flower from the doctrine of universal sympathy or reaction aforesaid. It follows from that two-fold doctrine that a multitudinous and restless image of the whole domain of Nature is continually painting itself on the cerebro-spinal axis of a man; for the whole

of Nature is phenomenal in all her parts. There is no death in Nature. She is a perpetual pulse, an ever-rolling stream, an unslumbering growth, an everlasting motion.

It is hence that, but for the limiting circumstances and the limitation described in the premiss before this one, all the universe would have been literally present to the soul in every human frame; and man would have been an omnipresent God. As it is, this constant reproduction of all the phenomena of existence within the organism of man, in an imperceptible but actual way, is 'an effect defective;' and we have seen how it 'comes by cause,' to borrow the half-wise phraseology of Polonius. Having already explained how the law of polarity is expressed by each part of the creation through means of its least contingent and most individual, in one word, its differentiating quality,\* and having now sent forward these five premises, it only remains that our hypothesis itself be suffered to come upon the scene. For the sake of clearness, and also for the securing of that brevity which is suitable to unproductive exercitation whether of the body or the mind, let it appear in the form of a succession of short parts or acts, like other comedies. The first of these parts, indeed, has been brought before the reader already, and that in the shape of serious scientific proposition. Purified and condensed, it will serve for the protasis of the present play.

I. That kind of sleep, or trance, which is commonly called mesmeric, although it is so ancient as to have been graphically represented by the priestly sculptors of old Egypt, is neither more nor less than the negative polarity of the nervous system of a patient to that of the

\* See *ante*, page 287, *et seq.*

operator under whose influence he may have fallen. It is a phenomenon in congruity with the idea, the law, the universal rule of the polar induction of opposite states by induction, by catalysis, by specific neighbourhood. The patient is negative, the planet, the woman, the left side, in this neurogamia or marriage of two nervous systems ; the operator is the positive pole, the sun, the man, the right side. This idea of polarity is to be extended, in all the different kinds, to the sensitive, the voluntative, the cogitative, and the sympathetic nervous elements of the cerebro-spinal axis. It is never in reality total, however, else respiration, for example, being sustained by the specific sensibility of the respiratory tract of the spinal cord, would cease ; and, in truth, mortal syncope would ensue. The neighbourhood of two axes, but that in circumstances of as complete exclusion as possible of all the causes of undivided sensation and intellectual life on the part of the intended victim, is all that is necessary to the induction of this mutual relation. Hence the Egyptians have recourse to odorous gums, and the Rosicrucians to various incenses ; and hence, also, the still, twilighted, temperate apartment of the modern mesmerist, not to forget his multifarious manipulations. In the state of true and total trance, the individuality of the patient is more completely gone than even in the depths of common sleep. You may cut him to pieces : he feels not, and that in neither of the senses of the verb ; he thinks not ; and he wills not. He is turned to stone.

II. But sometimes, according to the canonical scriptures of Mesmerism, there comes a change over the enchanted one ; instantaneously, or in a few seconds, or in a few minutes. The dead individuality is partially requickened ; the sleeper rises, half awake ; the stony

image, lying heavy on the chair, sits suddenly up, a semi-animated statue. The fulness of life has not yet returned, however. It is still and also beautiful as an oracle. It is life in death, not death in life. It remains upon the tripod ; and that in such a questionable shape, that you will speak to it. It hears what you say, although it does not listen like anything earthly, and it answers you like one inspired. In one word, it is a sibyl, a clear-seer, a clairvoyante, a far-seer, a second-seer, or what you will : the numerous descriptions of which, in contemporary books, certainly constitute one of the oddest and most significant of literary phenomena.

Now it is to be supposed that, in the somewhat complete neurogamia of the perfect trance, every atomico-physiological movement transpiring within the nervous circumference of the operator is shed into that of the patient. The pair is a dual unity, possessed of two mouths, four eyes, four ears, and so on. But it is to no purpose ; for there is no consciousness of the community within the sleeper ; and, even if there were, there is no means of its communication. It is only a potential community so long as the enchantment is total. Let us imagine, however, that the victim is partially disenthralled, and only partially. Suppose that his cerebro-spinal axis is disenchanting to such a degree, and no more, that the mere perceptivity of atomico-physiological movements within its round is reawakened ; and also that the sense of hearing is opened, and the organ of voluntary speech set free. In such supposititious circumstances it appears that, the perception of all limitative sensation except that of hearing having been cut off, the neuro-negative is thrown into a state of modified or partial neurogamia with the positive. It is a state continually lapsing back into the completed trance—for the ear is unclosed only

when solicited by the direct addresses of the positive voice, and is constantly falling shut again—according to the best descriptions which we have read. To be brief, the phenomena displayed by the half-liberated member of the pair may be classified under three subdivisions.

1. The sensations of the operator are transmitted to the patient; but they are transmitted in an inverted manner, so as to be precisely of the nature of remembered sensations or of simple conceptions. Owing to nothing positive in the patient, but to the absence of interfering sensations of every kind; owing to the stillness that reigns throughout his frame, these transmitted and descending echoes of sensation are so vivid as to be a sort of sensuous illusion. It is two mouths in one body. One tastes what the other tastes; but in the former the physiological movement is from within outwards, as has been explained in one of the premises of the present hypothesis.

2. The remembrances, the conceptions, the emotions, the consciousnesses of the positive member of this strange pair of wedded cerebro-spinal axes (in so far as those phenomena do commove the nervous fibre) are carried over in an exactly similar manner to the negative one: but they reach him as sensations, and that for the reverse of the reason why the sensations of the operator arrive at the patient in the shape of dim sensuous illusions. It is a kind of doubled consciousness. The operator bethinks him of an absent friend, and the well-remembered image stands before the eye of the patient: the former recalls a distant scene, and the latter is transported thither, like another Fortunatus: and so forth without end.

3. That multitudinous imago of the universe, which is always being painted on the nervous system of the



mesmeriser, as well as on that of every human being, though illegible by himself on account of his limitation by the inpouring and outpouring tides of nearer sensation, is shed over to the mesmerised ; who sits undisturbed, except by the temporary sound of the operator's questions. At the bidding of the enchanter, the spell-bound subject looks through the world for the friend, whose image the thought of him revives, and finds him. Once discovered, it is easy to read what he is doing.

This is our hypothesis of the mystery of clear-seeing ; and there is no need of expatiating upon it. In these pages, it is intended to be no more than a hint. Nor do we wish to attach any substantial value to the conjecture, except as an exercise of the mind. There are also certain physical, or hyperphysical principles involved in the fantastical fabric we are weaving, which lose none of their importance on account of the dubious investiture in which they are now presented to the reader's eye. As for the Sleeping Beauty of the Wood, for whom we have just been devising an imaginary scheme of deliverance, she is more than welcome to another century of repose.

III. It will be remembered, by such as have followed us with attention hitherto, that some mesmerists deny the phenomena of phreno-magnetism, as it has been illiterately called ; and attribute the appearances which gave rise to the supposition of their existence, to the inclusive phenomenon of double consciousness, which has been discussed above. If one might trust, not the moral, but the intellectual veracity of published accounts, there would seem to be two kinds of cases. One of these might be characterised as connected with phrenology ; the other only with the mesmeric double consciousness. In the former the response is immediate ; in the latter, some little time elapses between the call

and the answer. In the former the reply is vivid ; in the latter it is faint. Nor were it improbable that a mixed condition should occur. But it is with the phrenological instances alone that we have anything to do under this part of the subject, since community of consciousness has already been disposed of. Nor is it difficult to suppose that the touch or approximation of the operator's finger shall depolarise and liberate the cerebral organ touched or approached. Awaked by itself, alone, the particular organ rushes into a fury of activity ; for it is by the balance of all these organs that we are kept in equipoise. The whole force of the spirit pours through the opened floodgate. It is like monomania, or the rapture of the saint, the poet, the sage, when the object of contemplation is not the universe, but something less. It is like everything we do, in fine ; partial, exclusive, and in excess.

There only remains the application of our hypothesis to the case of the natural or spontaneous somnambulist. Being by no means prepared for an elaborate discussion of all the ambages of this mysterious subject, nor yet willing to enter more fully into it with the preparation which we have, we refer the reader to the suggestion thrown out already concerning Braid's hypnotic patients, as probably enough containing the clue to this part of the labyrinth. May not the halves of the cerebro-spinal axis in one individual become polar to one another, when the propitious circumstances are provided, say by fatigue or narcotics ? Since two equal and similar things, fallen into the mutual relation of polarity, cannot become one solar and the other planetary, inasmuch as neither of them is the greater or the less ; and since the idea of a dual unit, the coefficients

of which are both solar, is impossible ; it follows that they become both planetary, revolving round one another like double suns, that is to say, both negative ; that is to say, again, both non-sensitive, both non-voluntative, both non-cogitative ; that is to say, again, both asleep. Is this the true theory of sleep ? Since one hemisphere of the cerebral mass is often larger than the other, may it not in that degree and in such cases be neuro-positive ; and does not such a supposition render the Joseph, or habitual dreamer, intelligible ? In conclusion, may not the partial disenfranchisement of only one of the hemispheres, in one who sleeps, produce sleep-walking and its extraordinary concomitants, such as prevision and clear-sight ? At all events, it is certainly not so difficult to reduce the fact of spontaneous somnambulism under our gratuitous hypothesis as it seems at first sight.

One word more, and we have done. It is to be feared that some readers, and more especially such as are very favourable to the claims of mesmerism, will be of opinion that this hypothesis has been brought forward with unbecoming levity. It will perhaps be supposed that we do really believe in the higher phenomena just as decidedly as we have professed to do in the trance, but that we are ashamed or afraid to avow the fact. The real truth of the matter is neither far to seek nor ill to tell. The whole subject of Mesmerism was thrust on our attention early in life. We witnessed experiments of every sort, and we were too easily satisfied with their results. Then came the intellectual necessity of understanding and explaining such amazing phenomena ; that is to say, of co-ordinating and co-adunating them with the uncompleted sphere of science. A little band of fellow-students looked to us for such a service ; and the hypothesis, which has been outlined above, was the

product of our eager meditations. Having seen reason, however, to question the methodological validity of mesmeric evidence, our poor hypothesis is now advanced as nothing more than a playful exercitation of the intellect, in so far as all the more dubious findings of mesmeric research are concerned. Whatever may be its intrinsic worth or worthlessness as a piece of speculative thought, its value as a contribution to science is exactly equal to zero; and we do not entertain the very faintest hope, wish, or expectation concerning its future fortunes in the world.

‘The earth hath bubbles as the water hath,  
And this is of them!’

## ANIMAL MAGNETISM.

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It has been frequently asserted, and that almost from time immemorial, that the common magnet is capable of reacting upon the nervous system of man. Mesmer attributed all the phenomena of animal magnetism to the efflux and the influx of a subtle fluid conceived of as specifically localised in the magnet, but radiating also from stars and planets, sun and moon, the earth and the sky, and most effectively of all from the bodies of healthy and viripotent men. Less adventurous medicasters have confined themselves to the power of the magnet proper and to metallic tractors. Partly on account of the somewhat Paracelsian character of poor Mesmer, partly because of the bombastic and unenlightened enthusiasm of the vast majority of his disciples, and partly owing to the indeterminable nature of the professed phenomena, men of positive science have generally held aloof from the whole subject. Men of observation, accustomed to the use of telescopes and equatorials, of microscopes and micrometers, barometers and thermometers, thermoscopes and electrosopes, balances and test-glasses, entertain a laudable aversion to the employment of the morbid nerve of exceptional human beings as at once the indicator and the measure of any physical force whatever.

Even physicians, who never have attained, and probably never will, to anything like physiometrical accuracy of observation in the principal objects of their study, namely in symptoms and cures, have steadily and sternly refused to have anything to do with the magnet and its alleged effects on certain patients. They have even scouted, abused, contemned, and banned the unfortunate magnet, with that impetuous hatred which is characteristic of the otherwise magnanimous profession; —as if such proceedings could put a summary stop either to its influences or to people's belief in them.

The great obstacle in the way of animal magnetism, in so far as the regulars of science are concerned, is the circumstance that the only known reagent upon the professed and otherwise undiscoverable force is the exceptional nerve. It is to sensation, indeed, that is to say, to touching, tasting, smelling, hearing, and seeing nerves, that we owe all those facts, the recording, the classification, the generalisation, and the co-ordination of which constitute the whole substance of natural science; but it is to the common or general sensations of the race, not to the exceptional and particular sensations of the individual. It is also the unfailing instinct and practice of positive science to distrust the obscurer senses of touch, taste, and smell. It reserves its confidence for those of hearing and sight, the differences and identities of sound and of light being directly perceptible by the ear and the eye. In fact, it may be said that it is always the first effort of the exact sciences to transform the dimmer perceptions of the more deceivable organs into those of sight, the most discursive and accurate of the senses. The mineralogist does not satisfy himself with the intimations of what has been called the muscular sense, or that sense of resistance which is related to the

perception of weight, concerning the specific gravity of a stone. He weighs it first in the air, then in water ; notes the difference between the two weights ; and thence computes its specific heaviness. The chemist does not trust his fingers, or even his lip, for the temperature of his agents and reagents ; but invents the thermometer, and reads off its measurements with the eye. It is the same in the sciences of magnetism proper, electricity, and galvanism. Even in the investigation of sound (which is measurable with such exquisite nicety by the ear, as to render the art of music not only possible, but the very antitype of mathematical proportion), the natural philosopher converts its vibrations into visible things before he will philosophise upon them. In the region of the visible, on the other hand, he trusts as little as possible to the immediate reactions of the eye ; but devises micrometers, photoscopes, and what not. The excessive beauty of all this procedure consists neither solely nor mainly in the transmutation of the perceptions of the lower senses into those of the eye, which is ' the light of the body ' as reason is the light of the soul. He would deem but poorly of this great preliminary device of science who should think so. The true beauty of this primary invention consists in its elevation of the eye itself, from being a mere measure of external phenomena, to the dignity of being a measurer of them ;—two things as different from one another as a polypus is from a man.

It is chiefly in the art of healing that this nobler method of procedure is not realisable as yet. The physician must work as well as he can upon the reported sensations of his patient, the sounds of his stethoscope, and the feelings of his own fingers ; enlightening such comparatively vague intimations as reach him in

these ways, to the best of his ability, by means of knowledge derived from the scalpel, the microscope, chemical analysis, and other instruments of science. Let him be ever so learned in anatomy, organic chemistry, histology, pathology, and all other sciences, it is very seldom that he can altogether dispense with the sensations of his patient; that is to say, with the reported reactions of the morbid and exceptional nerve. It might, therefore, have been expected that physicians could have approached the subject of animal magnetism without scientific distress; and that not only because it professes to deal with the miserable body of man, but because its method of inquiry is akin to that of their blessed art. Alien to the habits of the natural philosopher and the chemist, its ways of procedure are not altogether foreign to theirs. It is accordingly not so wonderful that men like Elliotson, Esdaile, and Engledue, to name no foreign doctors, should have entered this department of doubtful science with the confidence of an honourable scepticism, as it is curious that the vast majority of the profession should have turned their backs upon it with aversion. This is not owing to motives of self-interest or scientific bigotry, but simply to that instinctive craving in the man of science for instrumental observation, which has been deepened in the medical men of the present day by the grand predominance of the exact sciences. They have failed, perhaps, to remember that the methods of such sciences are not altogether applicable in medicine. They have certainly gone beyond their preceptors; for it is notorious that men of eminence in optics, in chemistry, in natural history, and in physics in general, have shown more interest in the alleged phenomena of animal magnetism than have the descendants of Hippocrates and Galen. It will likely be retorted on this assertion that



it owes its truth to the fact that the physicist is ignorant of physiology. It may be so. The instinct of the profession may be preserving it from errors. It is even possible that those physicians who have dared to confront this phenomenal imbroglio, are not competent physiologists; for there is nothing more common in society than to meet doctors of medicine who are ignorant, not only of the first principles of physiology, but even of the very first principles of scientific research. But no man on earth can deny that it is the duty of every professed physiologist either to confirm or to confute the laborious and profound convictions of their colleagues in the architecture of science, be their supposed or actual deficiencies what they may:—or else to keep a wise and kindly silence. No other course of conduct is either manly or safe.

The animal magnet, however, has at last found a scientific champion in the person of Karl, Baron von Reichenbach and doctor of philosophy, resident and at work in Castle Reichenberg near Vienna.\* During the last ten years, this eminent personage has satisfied himself that the old story about the power of the magnet over the nervous system of man is well founded. Having surrounded himself with a multitude of witnesses to the fact, he has multiplied experiments with rare ingenuity; recorded hundreds of results with much fidelity; and constructed a generalisation or theory of the whole subject, which is not without its feasibility and beauty. In short, the baronial doctor has either created a new science for posterity, and placed himself among the Copernicuses and Newtons, at least with the Voltas and the

\* *Researches on Magnetism, Electricity, &c., in their relation to the Vital Force*, by Karl, Baron von Reichenbach. Translated by Professor Gregory. 1850.

Oersteds of the world ; or he has built himself as brave a castle in the air as ever was seen. There is, indeed, a third alternative, to borrow an image from Marryat's triangular duel : It is possible that Castle Reichenbach may turn out to be partly real and partly false, founded on facts but reared with unsubstantial inferences, begun in truth and ending in moonshine.

It is just six years since Reichenbach published the first part of his novel researches in two supplementary numbers of Liebig and Wöhler's *Annals of Chemistry*. It is impossible to deny that this experimentalist possesses certain of the qualifications for such an investigation in a very high degree. He had won himself a good name for accuracy and invention by his analysis of tar, and of the proximate principles which he discovered to be the components of that fragrant olio. His knowledge of several departments of natural philosophy and history, as well as his active labours in them, had long been acknowledged in the commonwealth of science. It appears that he had earned the distinction of being unquestionably the highest living authority on the natural history of *ærolites* or meteoric rocks and stones. Altogether, he had approved himself a sufficient and reputable master in the great art of scientific observation. It was therefore no wonder that Berzelius, who made a greater number of accurate observations in chemistry than ever was done by any single man in the whole history of that science, should express the opinion that the investigations now under review could not possibly have fallen into better hands. The Swedish chemist had frequently expressed the wish, during the last forty years of his life, that the allegations of the mesmerists concerning the magnet should receive a liberal but searching criticism at the hands of some competent

experimentalist ; and his hope was fulfilled in the person of his friend the discoverer of creosote. The Baron has also been singularly fortunate in securing the confidence, approbation, and discipleship of Professor Gregory, a man quite remarkable for openness of mind in the direction of natural science. Those great qualities and strokes of good fortune, however, have not protected him from much injurious treatment: the insolent silence of neglect ; the private and social sneer of many scientific circles, where his name would have been pronounced with vast respect, if he had only not dared to venture on untrodden ground ; the open but uncandid criticism ; the virulent and unreasoning assault ; and even the depreciation of his past labours. It is the world-old tragedy of scientific history. No sooner does a man obey the impulse of conscience, and challenge the foregone conclusions of his age, than the hue and cry is raised against him. It is in vain that he lavishes his good name, his means, his talents, the blood of his heart, the sweat of his brain, everything that is his, upon the working out of the thought by which he has been visited. One word of scorn, one flippant little word, will defraud him of the only outward reward he values, namely, the sympathy of his brethren. Why, even if the enthusiast were the laborious and generous victim of some coil of error, he would still deserve the love and furtherance of men, for he is at least casting his life into some breach with bravery worthy of a better task ; but being the heavy-laden, and therefore the slowly-treading, perhaps the staggering bearer of a weighty new truth from the heart of Nature to the ears of her frivolous children, they ignore, flout, slander, obstruct, and even hate him. The highest and most enduring reward of scientific exploration, conducted in the spirit of the

masters and not in that of the hirelings, is not even the finding of truth ; it is the finding of new strength, faith deepened in foundation, more capacious love, and hope building higher and higher. Such assuredly, let all critics and criticasters know and inwardly digest, shall be the mellow last-fruits of this protracted and harassing investigation of Reichenbach's, be the residual amount of scientific truth contained in his books what it may.

These researches have been continued with great industry ever since 1844 ; and the results of his manifold labours in this direction are now before the world in a large octavo volume, composed of two parts. Dr. Gregory has lately translated and published it for the use of the British public ; a service which is doubtless its own reward. The merits of this remarkable volume are great. The painstaking, conscientious, cautious, ingenious, we had almost said the religious, and certainly the self-possessed enthusiasm with which the experimental clue is followed from turn to turn of the labyrinth, is surpassed by nothing of the same sort in the whole range of contemporary science. The moral qualities of a great explorer are displayed by the author in no common degree, with one exception. It is beneath Von Reichenbach to speak with so much bitterness of spirit against Reymond, his Berlin vituperator, or with such contempt of his young medical opponents in Vienna ; although the former is a bully, and the latter are puppies : ' He is there sitting, where they durst not soar.' But his too great animosity against these wretched critics is not the exception referred to. It is a want of respect for the convictions of others ; the very crime that is perpetrated against himself. His observations relative to ghostly or spiritual apparitions are little short of insulting to those who believe in such things ; and all the more so, that

they appeal to the very same kind of evidence as his own discoveries depend upon. Excathedral denunciations of other people's beliefs do not become the writer who exclaims against them in his own case. Ghosts are to be disproved or explained away, or else established and reduced to law, by the same methods of criticism as are applicable to odylic flames. Then why does he indulge in such woundy contempt for the older school of mesmerism ? Its cosmical fluid is as good as his ; it is the germ of his, indeed, call it animal magnetism, call it odyle, or call it what he choose. To deface the memory of Mesmer is to disown his own father. Mesmer is the legitimate predecessor of Reichenbach, whether the Baron will or not. It was the doctrine of Mesmer, suggested by a chapter of Van Helmont's, that there radiates from the sun, the moon, the planets, the earth, in short from the whole of nature, a quick and subtle essence, which is not heat, nor light, nor anything else that is known. This secret force was furthermore understood by that speculative physician to be peculiarly resident and concentrated in the common magnet ; and partly on that account, partly because the animal nerve was its only known measure or reagent, the fluid itself received the name of animal magnetism. Let us now see what sort of extension the magnetist of Vienna has given to these ideas.

The germinal fact from which this singular investigation has sprouted and grown, till it has become somewhat of a jungle it must be confessed, is very simple considered as a fact ; but there are many ways of accounting for it, simple as it looks. When good strong magnets, capable of lifting some ten pounds weight, are carried slowly down the persons, without touching them, of a score of people taken at random, one or more is sure to

be affected by the passes, as they are called, in a notable and a somewhat describable manner. Sometimes so many as three or four such sensitives will be found in that number of subjects. Our author knows an institution where eighteen out of twenty-two women are perceptive of the sensations produced by the passes of the magnet. Many people, who enjoy an average degree of good health, seem to feel the influence in question. The higher degrees of sensitivity, however, are shown chiefly by the sickly ; folk with weak nerves, the hysteric, the spasmodic, the cataleptic, the epileptic, the paralytic, sleep-walkers, and the insane. As for the very large number of healthy subjects, who displayed considerable and even remarkable sensitivity in the later of Reichenbach's experiments, it is not to be forgotten that the apparently healthy man may well be the subject of an unhealthy diathesis or habit of body. The tendency to fits, somnambulism, and madness may and does exist in thousands, who never show it to the uninitiated eye :— a thing to be insisted on with all respect for Endlicher the botanist, Schuh the mechanician, Kotschy the traveller, and all the other healthy enough patients of the Baron. The difficulty is to find a family without hereditary morbid dispositions of the constitution ; and a considerable, if not a large proportion of those inherited vices must be assigned to the class of nervous disease. This investigation would, therefore, have been more complete, if the hereditary and acquired predispositions of the so-called healthy patients had been ascertained. It is not a very difficult thing to do ; but it is a delicate task, and we must be content without it in this instance. In the meantime, it would be unfair to assume that all the subjects described in the course of those researches are the victims of a neuropathic diathesis, or ill habit of

body in the matter of nervous system. The reader may suspect it, but he cannot prove it. It is our own opinion, we confess ; but opinions go for nothing in the sciences of observation and induction. At the same time, it is a point which the candid experimentalist in this department will do well to attend to, for it is an inquiry of some importance.

The sensation produced in the excitable by the magnetic pass is represented as being rather unpleasant than agreeable ; and it is associated with a slight feeling either of coldness or of warmth, resembling a cool or else a tepid little breeze passing along the line of traction. They sometimes experience a sense of dragging or pricking in the parts under reaction. Formication or the sleeping of a limb is not an uncommon attendant on these experiments. There are some men in the prime of life who perceive this magnetic influence, but women are decidedly more sensitive. It is sometimes vividly felt by children. The most notable of this whole group of magnetic symptoms is the sensation of cold or of heat.

Starting from this primitive and obscure fact, our experimentalist has discovered a multitude of related things. He has found that one pole of the magnet produces the sensation of coolness, the other that of warmth. That single crystals of all sorts of chemical substances, especially when very large and perfect, work the same effects as the magnet. That one pole of the crystalline axis produces coolness, the other warmth. That crystals possessed of more than one axis are also endowed with more than two poles of animal-magnetic action ; how many axes so many poles. That chemical action is also animal-magnetic ; some reactions producing the cool, others the warm sensation, in the sensitive. That light is animal-magnetic precisely in the same way ; the light of the sun

and sun-stars being cool, that of the moon and planets or moon-stars being warm. That heat, electricity, and galvanism are all capable of giving rise to the animal-magnetic phenomena. That the body of man is peculiarly potent in this way ; whence the manipulations or hand-passes of Mesmer and his disciples. That one side of the body produces the cool, the other the warm sensation, in the sensitive. That, in fine, everything in nature, crystalline or uncrystalline, magnetic, chemically active, luminous, cold or hot, dead or living, is capable of yielding similar results ; a fact amazingly and suspiciously broad and general.

These things are known only through the reports of subject-patients of course ; but Reichenbach adduces the testimony of some sixty people, of both sexes, of all ranks, of all degrees of sensitivity, some of them men of science, two or three of them members of the medical profession ; and the unvarying agreement of such a number of intelligent people had better not be set too easily aside. Any thing like imposture is wholly out of the question. The simplicity, the purity, the precaution, the ingenuity, with which some of the experiments were made, cannot be too much admired, as shall be found when we come to the discussion of the second great fact in the investigation, namely, the perception by the sensitives of the odyllic lights, as they are called. In the meantime, we accept and believe the fact of the animal-magnetic sensations of cold and heat, as evoked in the sensitives of our investigator by magnets, crystals, chemical mixtures, light, heat, electricity, and everything else.

Before proceeding to the theory of this broad fact, however, let us clearly understand what it is as a fact. The sensation produced is not an actual and ordinary sensation of heat or cold of course. No thermometer, no



thermoscope, detects the slightest change of temperature. In a section devoted to the consideration of the difference between the agent of these phenomena (as well as others) and heat, the author is perfectly aware of this. Heat sometimes produces the cold animal-magnetic feeling. The warm radiance of the sun flashing upon a broad metallic plate sends the cool breeze through a long wire to a sensitive in an isolated chamber. In short, this animal-magnetic coolness or warmth is not real in one sense of the word ; that is to say, it is the image of no object. It corresponds with no phenomenon of temperature. It is not a sensation proper ; it is a mere quasi-sensation. It is a sensuous illusion. The magnet or the crystal appears to act upon the nerve of the subject in some yet occult way ; and one of the effects of that action is the perception of a pseudo-sensation of heat or cold. That pseudo-sensation is a mere spectral illusion at the very best. Reichenbach knows this. He has even expressed it ; but it does appear to the critical student of his work that he does not lay enough stress upon it, perhaps even that it does not seem to have pronounced itself with sufficient emphasis to his mind. He should have iterated and reiterated it all through the book. Neither the writer nor the reader could have held it too constantly and inexorably in view, ‘ for thereby hangs a tale.’

So much for the facts themselves ; and now for the theory of them. It has just been said that the animal magnet (whether a common magnet, a man’s hand, or a crystal) appears to stir, agitate, commove, or act upon the nerve of the sensitive in some yet wholly occult manner ; and that one of the effects of that action, is the perception of a quasi-sensation of heat or of cold in such nerve or nerves. But there are two to a bar-

gain ; and even this small amount of claim for the power of the animal magnet is open to reasonable question. Mr. Braid the hypnotist, and also the most searching of the experimental critics of mesmerism, has published a counter-statement. He asserts the principle that the instrument employed, whichever of all the so-called animal magnets it may be, has nothing to do with the sensations in question ; nothing, that is to say, in the way of direct causation. He can produce precisely similar sensations in certain sorts of people both with and without such an instrument. He takes a patient's hand, lays it on the table with the palm upwards, makes passes from the wrist down the fingers, and the subject soon begins to feel cold or warm, as the case may be, under the lines of passage. He then bids the patient turn away her head, and making believe that he is repeating the experiment, asks her what she feels ; and she experiences the very same sensations as before, although no passes are being made. In short, he provokes the same sort of sensations as are described by Von Reichenbach, without the same instrumentation. He has only by word or sign to excite the expectation of the occurrence of such sensations in the patient's mind. Dr. Holland has shown at large how the direction of the expectant attention to any organ or part of the body excites actions in that part.\* The mesmerist, or hypnotist, as Braid prefers to call him, is also well aware that he can present any image he chooses to his patient, by a word or a hint. It is therefore very natural for Mr. Braid to conclude that the Viennese patients experienced all those sensations, or quasi-sensations, merely because they more or less obscurely expected them ;—in other words, that they

\* *Medical Notes and Observations* ; a truly admirable book of facts and thoughts.

directed their expectant attention to the parts apparently operated upon, and the sensations ensued. The uniformity in character of these quasi-sensations is no objection to this view, for the uniformity in character of all spectral illusions is one of the most noticeable of things about them. There is a law or unity of procedure in the phenomena of disease, quite as clearly displayed as in those of health.

Yet the conclusion of Mr. Braid is not obligatory. The same effect may be produced by two differing causes. A man may perceive the image of a tree, because the radiance of a veritable tree paints it on his retina ; but he may also perceive the image of a tree because his nervous system is disordered, and a tree of conception is thereby intensified into a tree of quasi-sensation. The perception is the same in both these cases. A hypnotic patient may see a book, because a book is placed before her, or she may see a book because an experimentalist tells her his glove is one. Mr. Braid has failed to perceive this alternative, and his inference is therefore defective. His experiments may be good and true, but so may those of Reichenbach. His effects may have been produced by suggestion, Reichenbach's by objects. Similar as they are, and diverse as are their respective causes, they do not contradict one another. For our part, we accept them both. Braid's cases seem to be unexceptionable ; but it is not easy to read the elaborate and orderly statement of the German naturalist, to consider the number and character of his subjects, to observe the precautions taken against anything like suggestion, to notice the continual congruity of the descriptions given by the patients, to see the checks upon coincidence and unintentional collusion which occurred at every turn of the inquiry, without yielding to the conviction that the phenomena,

obscure and indirect as they are, were the effects of an outward physical cause. That physical cause or force is not magnetism, for a crystal is as productive of the effects as a magnet, and a crystal is not magnetic. It is not crystalism, if the reader will tolerate a bad new word for once, for amorphous or uncrystallised matter is also effective in this way. It is not light ; it is not heat ; it is not electricity : neither is it chemical affinity, nor gravitation, nor anything peculiar to organisation. It is nothing that we know otherwise than in and by those new observations. The author of the investigation under review considers it to be a distinct and universally diffused force, the common accompaniment of all those better-known cosmical powers. In compliance with an old and established method in physical science, he refers the phenomena to the external agency of a new imponderable fluid, analogous to, yet differing from caloric and its congeners, which he christens by the name of Odyle—a word perfectly synonymous with animal magnetism. Before proceeding to the criticism of the ingenious Baron's views of the natural history and physiological scope of this cosmical force, it is necessary to examine another series of his experimental observations.

The animal-magnetists have been proclaiming, during the progress of more than half a century, how the more susceptible of their patients declare that they see rings and haloes of light playing round the heads of their magnetisers, or such as are placed *en rapport* with them ; strings of light passing towards them from those by whom they are being swayed ; lambent glowings of light investing those to whom they are drawn by sympathy ; ' glowings, glowings everywhere, but ne'er a ray to see by,' to paraphrase a memorable distich of the *Ancient Mariner*. Without express reference to these allega-

tions, but guided by some dim conjecture concerning the nature of the northern and southern lights or auroras, our experimentalist requested the father of one of his earliest and most sensitive patients to place a powerful horse-shoe magnet before her during the night. She immediately perceived nebulous lights or flames flickering upwards from the poles of the instrument. This was the beginning of a long series of singular experiments of the same kind. All sorts of patients were found to see similar lights—odylic flames, odylic threads, odylic vapours. Some saw them rising from the same magnet to different heights and of different colours. They saw them playing round the poles of crystals, emanating from finger-tips and lips, rising in fact from everything. They saw them, not knowing they were to see them. Their descriptions did not jar with one another. Cataleptic girls, people of good culture, men of science, agreed in their reports. In one instance the flames, from a very powerful magnetic pole, were some ten inches high. Chemical action, sunlight, &c., all sent such flames through wires in such a manner, that a patient, confined in a pitch-dark chamber, saw them issuing from and playing around the extremities of the wires, introduced through the luted key-hole. A little globe or *terrelle*, with a good straight magnet in its interior, as an axis with its pair of poles, suspended from the ceiling of a dark room, gave a mimic semblance of the earth and its auroral lights to the sensitive. In short, not only the old-world stories about corpse-candles and ghosts hovering over graves, but the phenomenon of the aurora are at length explained—to the satisfaction of this experimentalist.

Now, apart from Mr. Braid's finding that precisely such lights are perceived by exceptional people under the

influence of suggestion and expectant attention, and accepting the amazingly congruous perceptions of Reichenbach's sensitives as the effects of an external physical cause operative in magnets, metals, crystals, planets, suns, plants, and animals, there is an all-important remark to be made concerning them on the very threshold of his theory. It is this: The sensations of coolness and warmth, as produced indirectly by the same agents, are not correspondent with external phenomena of temperature. He has said so himself. They are real as perceptions, not as sensations; they are tactual illusions. By a parity of reasoning, these perceptions of light are not real as sensations; they are real only as perceptions. They are not correspondent with external phenomena of light. They are the parallels, the analogons of the quasi-sensations of coolness and warmth. They are optical illusions. A fact must be judged by its peers; and if the sensations of heat and cold produced by a magnet or a crystal are only quasi-sensations or spectres, then the sensations of red and blue produced by a crystal or a magnet, are only spectres and quasi-sensations too. This at once explains how one sensitive should see the flames three inches, and another see them ten inches high, though issuing from the same pole of the same magnet; for when a dim-sighted person sees an illuminated disc, he does not see it as of half the size it presents to the eye of one who sees twice as well, but of half the degree of illumination. It explains how 'even Bollmann,' as Reichenbach frequently says of his one blind patient, should perceive the odyllic lights just like another. In fine, it explains all the little discrepancies between the reports of the sensitives, while it does not contravene the remarkable amount of similarity or identity of these reports; for spectral illusions (whether arising wholly

within the nervous system, as in *delirium tremens*, or drawing one of their origins from without, as in these memorable experiments) are the orderly exponents of law, just as truly as are any other natural phenomena. But this view also excludes and rejects the Reichenbachian hypothesis of the aurora, unless the hypothetist is prepared to defend the still more novel proposition, that the aurora is an optical illusion, quite as visible 'even to Bollmann' as to those who have eyes! In truth, even if we reciprocated his belief concerning the common reality of his odylic radiance, we would deeply regret that he should have ventured to leap the gulf which separates the sheen of magnets and crystals, perceptible only by the exceptional, from the classical and published glories of the polar light. But we do not reciprocate that belief. On the other hand, we entreat his disciples to take notice, that parity of reasoning, just analogy, and the right rule of induction, compel the critical mind to place the odylic lights on the same level with the odylic heats and colds; which latter the discoverer himself perceives and states, but without precision, to be illusory as sensations, though real and constant as perceptions.

We have said nothing about Reichenbach's attempt to furnish something like a physical proof of the optical nature of the odylic flames, threads, and smokes; and that simply because it is utterly unsatisfactory. His friend Carl Schub, an expert heliographist, shut up a prepared silver-plate, with a magnet before it, in a dark box, and another without a magnet in a dark drawer. After some hours the former was found, by exposure to mercurial vapour, to be affected by light; the latter not: 'but the difference was not very great.' Why were the plates not in exactly similar dark boxes or drawers? 'A dark box' and 'a dark drawer' are

worth nothing whatever in an experiment so infinitely dainty as this. Schuh next placed the magnet over against a plate, within a box wrapped in thick bedding ; and after sixty-four hours the plate, on exposure to the vapour of quicksilver in the dark, showed the effect of light over its whole surface. Why were not two plates, one with and the other without a magnet, and in equally dark boxes of course, employed in this experiment ? And why was this most legitimate and comfortable species of experimentation not prosecuted any farther ? Certainly these two poor experiments prove nothing. The experiment with two plates lasts a few hours ; the experiment with only one, and therefore without a check, lasts sixty-four : the check in the former was rendered null by want of care about the box and the drawer ; and there was no check provided in the latter. The experiments of Mr. Braid are much better.

They were made with nine plates, prepared by Mr. Akers of the Manchester Photographic Gallery, a man professionally engaged in Daguerreotypic experiments, and therefore quite as likely to be an adept as Herr Schuh. Three of the plates were exposed to the action of a powerful horse-shoe (originally able to lift eighty pounds, but somewhat reduced by use) in seclusion from light. Other three were treated precisely in the same manner, only two sheets of black paper were placed between the magnet and the plates, so as to intercept the real or supposed radiance of its poles. A seventh plate was confined in a box at a distance from the magnet. They were all kept in these several circumstances from sixty-six to seventy-four hours ; but in no instance was there any appearance of the photographic action of light, the only changes being such chemical modifications of the surfaces, 'as generally arise from keeping prepared



plates for some time before exposing them to mercury.'

Now it is to be noticed that these are three positive results. Those of Schuh, such as they were, were at the best only negative ones. In his two experiments, it is not the least impossible but that common light reached the plates ; and it does not appear that he was on his guard against those chemical changes which 'generally arise from keeping prepared plates for some time.' But in the experiments of Braid and Akers, metallic sensitives were positively and indubitably submitted to the prolonged action of a powerful magnetic force, but no photographic effects ensued. This is the positive observation, not that ; although at first sight it seems to be the reverse. In every point of view, in fact, the experiments of the Manchester surgeon are greatly superior to those of the Viennese authority on meteoric stones ; and they settle this part of the question in the meantime. It is of course quite possible that Reichenbach, or some other experimentalist, may yet adduce photometrical evidence so luminous as to throw all objections and objectors into perpetual shade ; and therefore let us all be prepared to give it a scrutinising but a hearty welcome.

But Reichenbach made another experiment with a lens ; an experiment, however, not a whit more physical and positive because of the use of an optical instrument.

It had an opening of about eight inches, a focal distance of about  $12\frac{1}{2}$  for a candle at 59. In a dark room he placed the magnet, whose flame was  $10\frac{1}{4}$  inches high to Madlle. Reichel, the subject of this experiment, behind the lens at the distance of about 25 inches, directing the axis towards a wall to which he called the attention of the patient. It was found necessary to withdraw the

lens gradually to the distance of 54 inches from the wall, during which process Reichel saw 'the image' constantly diminishing, till it had shrunk from  $10\frac{1}{4}$  inches to the size of a lentil. She placed her finger on the place where she saw the focal image; the experimenter felt for her hand, and placed his own finger on the spot. He then desired an assistant who held the lens, to shift its direction without saying how. The girl instantly pointed out another spot. The observer felt for it, placing his finger on it, and desiring the assistant to tell him in what direction the lens had been moved. His finger, he says, was always found to have been placed in the direction indicated; whether to the right or to the left, upwards or downwards. This experiment was subsequently repeated with a very large lens, made at Paris on purpose, upon a great number of sensitives with similar results; and those results are doubtless all true as facts.

Yet they are quite unsatisfactory as bearing on the point now at issue. Nobody who is conversant with medical psychology, or knows anything of the phenomena of spontaneous somnambulism, or is aware of the power of direct or indirect suggestion over mesmeric patients, even over highly educated men apparently quite self-conscious, can attach any value to them. The more intelligent the sensitive, the worse; for he will just understand the suggestions of the apparatus and the experiments all the better, and expectant attention will have all the fuller swing. Moreover, if a sensitive sees such lights emanating from the magnetic poles, and from her own person, and from the experimenters, and from the lens, and from everything else, as are described in other parts of this piece of research, why, the dark chamber can hardly be dark to her. Lastly, 'right and left, up and down,' and

all such vague indications are surely far below the mark of scientific accuracy, as it is practised and demanded in these days. But here appears the avenging Nemesis of Reichenbach's contempt for the older mesmerists. If he had studied their works, he could neither have made nor published this set of his experiments. Braid the hypnotist would more especially have furnished him with both facts and thoughts for his guidance. Dr. Holland, who is neither hypnotist nor mesmerist, would have put him on his guard against the effects of expectant attention on certain exceptional nervous systems. In fine, our otherwise accomplished investigator would have been all the better for a little more knowledge of the physiology and the pathology of the cerebro-spinal axis, considered as the instrument of the mind. At all events, these experiments with the lenses will carry conviction into the judgment of neither physicist nor physiologist, especially if he be cognisant of the phenomena to be evoked in the mesmerised nervous system by a word, by a sign, by absolutely next to nothing; and still more especially, if he have seen how perfectly self-conscious the possessor of such a nervous system may appear to be, even when seeing water become white, a handkerchief turning into paper, and so forth. If Baron von Reichenbach were to intermit his experimentations in this department for a year or two, as being dazzled and bewildered by the strange things he has seen with the astonished eye of his mind; and if he were to occupy the interval with the study of the phenomena of morbid psychology as shown in the sleep-waking, mesmeric, and partially hypnotic states, the second edition of this great work of his would probably be as superior to the first, in all the qualities of scientific and literary organisation, as a psyche to its chrysalis, or the chrysalis to its original worm.

It is unnecessary to say anything concerning this author's observation, that a cataleptic limb frequently follows a magnet or an operator's hand as if it were attracted by them ; for the observation has often been as well made and better stated. It is astonishing that, knowing as he does, that there is no mutual attraction between the magnet and the cataleptic limb, he should not have defined it as an irresistible following of the removed magnet on the part of the limb. This phenomenon, in fact, considered as a phenomenon of motion, is altogether subjective in the patient. According to our experimentalist himself, a magnet suspended from one end of a beam and balanced by weights at the other, never moved when a cataleptic hand was tending towards it with much force, was allowed to approach close to it, and was hindered from touching and clinging to it only by the stronger arm of the operator. The magnet does not draw the hand, but the hand seeks towards the magnet ; and an experimenter's fist or a large crystal is as good as a magnet.

As for the facts recorded concerning the discomfort experienced by some sensitives from lying in any direction but that of the magnetic meridian, with their heads northwards and their feet southwards, they are very curious and important ; but they still retain all the characters of isolated and unexplained facts to our mind. If they be referable to any animal-magnetic or other physical law, one should expect to find it hinted, if not strongly set forth in the instinctive habits of the living world ; but the author frankly confesses there is no such indication in the common history of nature. Since Faraday has proved that the body of man is a diamagnetic, in all its parts and as a whole, the direction of east and west should be the most suitable for repose, always supposing the magnetism of the earth is strong enough to

act upon a sleeping animal at all. This is also the proper place to mention that Reichenbach appears to suppose that his odyle and the London discoverer's diamagnetism are one and the same thing. Dr. Herbert Mayo understands him to say so. Inasmuch as we cannot understand the meaning of this claim, opinion, conjecture or scientific hope, we cannot criticise it. North and south and east and west, longitude and latitude, are certainly at right angles to one another.—But it is clear that we do not comprehend the meteorologist's ideas on this point, so that it will be better to proceed at once to the criticism of his doctrine of odyle.

Carefully remembering then that the heats, colds, and luminosities of this whole investigation do not correspond with any real external phenomena of temperature and light, yet allowing that the perception of them as quasi-sensations or sensuous illusions is initiated by some occult action on the exceptional nerve, it remains to be considered what the agent of that action is in itself. It is resident in everything that is material; it is more potent in matter that is more active, in crystals, in chemical mixtures, in magnets, in the living body; it is peculiarly energetic in mighty magnets, and in a kind of mighty men. Wherever there is more than ordinary atomic activity, or wherever the sum of that activity in a single form is made to drive in one direction by polarity, as in the magnet and the crystal, there this obscure action upon the exceptional nerve, this *cœnæsthesia*,\* as Feuchterleben the great medical psychologist would have called it, is more than ordinarily made manifest. Of its *cœnæsthetic* effects we know absolutely nothing, except in and by means of the sensuous illusions it gives rise to in some round-about manner, of which also we

\* Hidden, secret, latent, or dark sensation.

know nothing. Now all nature is quick with motion, all nature throbs and thrills, all nature is phenomenal. Suns blaze and rotate, planets rotate and revolve, atoms never rest. The coldest stone is as full of movements, actions, and reactions as the milky way. How much more intense the interior phenomena of a regular crystal with its pointing axis and poles, an energetic magnet, a plate of metal with the sun flashing on it, the chemical battery, an ever-unfolding tree, the body of a breathing man! Every footfall is propagated through the universe. Did it descend on the snows of Siberia, it would penetrate to Peru in a trice, and pass on for ever. It would institute motions in every nerve in Christendom. Suppose that instead of a footstep it were an earthquake, is it not very easily conceivable that the exceptional nerve should be obscurely sensitive of the shock, not so as to recognise it for an earthquake or a shock, but so as to fashion forth for itself a sensuous illusion pointing to the north-east, a flash of light or a glow of heat? In a precisely similar manner do we think that the ordinary atomic energies, which are common to all animal magnets, are quite competent to the commoving of the exceptional nerve in such a manner as to yield spectral glows and coolings, lights and shades, however vivid these may be to the perception of the unfortunate subjects. The inward stir, the wondrous and incalculable inward stir that is ceaselessly going on within the body of the so-called animal magnet, excites an inward stir within the substance of the exceptional nerve, and that stir bodies itself forth through the said nerve to its percipient owner as a cool aura, a warm breeze, a luminous flame, a thread of light, a phosphorescent vapour, or what not. In other words, the common nerve of man is reactive on the whole of nature; especially on

the more energising forms of nature, the magnet and so forth, but not in the way of sensation, or anything that simulates the nature of sensation : whereas the exceptional nerve is all the more reactive on those highly energetic natural forms, but that not in the way of direct sensation either, only in the way of indirect quasi-sensations or sensuous illusions of remarkable regularity of character. This simple view of the matter explains everything connected with the subject ; the peculiar action of peculiar substances or classes of substance, idiosyncratic aversions to certain forms of matter, nervous sympathies and antipathies, and so forth. Now it is the great rule of the inductive hypothesis, that the investigator invent nothing new if possible ; it is the second, that he adduce the minimum of causation for the maximum of effect ; and it is the third that he proceed from the known to the unknown. It is humbly submitted that the doctrine now explained fulfils these conditions.

Reichenbach, however, has devised and promulged quite another doctrine, which seems to comply with only the last of these rules. He refers the *coenæsthetic* effects under discussion to the agency of a new imponderable or dynamide. This new fluid or force is distinguished from caloric, electricity, magnetism, and their congeners, by the name of *odyle*. Apart from hypercriticism of the notions commonly entertained concerning the nature of the so-called imponderables or dynamides in general, and allowing the usefulness of such language as corresponds with these notions in the meantime, we can only say that we do not see the necessity or convenience of creating this new sort of matter or material power ; and those who have followed our strictures on the facts of the case with their approval will assuredly say the same.

We acknowledge neither the thing nor the name. The former is *non-inventum* and unnecessary; and the latter is as odd as it is ill compounded.\* They are both of them intellectual illusions in our opinion, struck out of the investigator by his observations; *et præterea nihil*.

The author indeed endeavours to substantiate his odyle by investing it with a show of polarity, and setting it forth in all the algebraical and Arabian dignity of plus and minus, and dressing it out in the point-lace of positive and negative,—thesis, mid-point, and antithesis. This part of his researches appears to be a signal failure. Heat and cold are not polar opposites; the latter is the negative of the former in a very different sense from that, in which the chloroid pole of a galvanic battery is negative to the zincoïd one. They are not anode and cathode, they are not positive and negative, two yet one, opposites not differents, in the physical sense of these terms. Neither are light and darkness; still less are red and blue. Yet the only indication to be found in our author's experiments, that his (invented) odyle is bipolar in its manifestations, is the fact that heat and cold, red and blue, are produced as quasi-sensations in the exceptional nerve by the actions respectively of the poles of a magnet, the poles of a crystal, sun and planet, right and left of the human body, oxygenoid and potassioid bodies, and so forth. That the opposite poles of a magnet (and so on throughout the list) should produce different cœnæsthetic effects is what might be expected. It tallies with all experience. But these effects, coolness and warmth, do not stand in polar opposition to one

\* Men of science are sometimes, if not generally, but indifferent hands at the making of words. Chloroform has been dubbed an anæsthetic agent! An anæsthetic is an insensible; but chloroform is neither sensible nor insensible; it only renders its inhaler insensible.



another after all. Moreover, the experimentalist should have remembered that his sole reagent, namely, the cerebro-spinal axis of a sensitive, is confessedly and notoriously a bipolar instrument. It is therefore our distinct opinion that the very superficial semblance of bipolarity, observable in the cœnæsthetic effects of crystals and other animal magnets, are derived partly from the polar relations of the agents, and partly from the manifestly bipolar constitution of the nervous systems of the reagents, from Reichel and Nowotny up to Endlicher and Kotschy, to say nothing of the duality of the cerebro-spinal axis of the observer himself. At all events, the inherence of bipolarity in a force so dimly and remotely hinted by experiment as this, even supposing it to be nothing less than a new cosmical power, must be established on incomparably more outward and positive grounds than the quasi-sensational reports of exceptional women and men.

Such is a candid criticism of this singular piece of work from the point of view of a positive, that is to say an inductive methodology; and we trust it has been expressed with good nature and respect. In case any reader, going along with the experimentalist in all his judgments, should think some of our phraseology is touched with the spirit of levity and some of it too caustic, we beg to repeat the assurance of a profound regard for the accomplishments, the ability, and the courage of the inventor of odyle. It is confessedly a miserable thing to think that a laborious and self-denying man shall spend years of toil in working out a difficult subject, only to be criticised by people sitting at their ease in their studies; and we should feel our present task to have been ungracious in its very nature,

and even somewhat insolent in its performance, if we did not heartily desire, and now strongly express the wish, that everybody who has perused this commentary should also read the book commented on. Nor is it possible for the student of positive science to forget that, although an experimental subject may be open enough to critical objection in its earlier stages of development, another day's work, or a single new experiment on the part of the explorer, may cover the handless critic with confusion of face. Talk is nothing to work, and speculation is less than nothing to fact. The only thing that becomes men like our present experimenter is to tread right forward; coolly, firmly, slowly, and surely. In some propitious hour he may discover a purely physical reagent upon odyle; and thereby not only silence the conscientious critic, who will rejoice to hold his peace; but also bring to open shame that curse of science, the man that 'sits in the chair of the scorner.'

Nor must the reader whose bad passions may perhaps have been gratified by the body, if not by the spirit of this critique, conclude that little or nothing remains in the book after such large deductions as have just been made. Very far from that. Supposing the author and his disciples ready to grant that the odylic lights are as spectral as the odylic heats and colds, that the existence of odyle is the most questionable thesis in all the literature of experimental science, and, in fine, that every one of our objections is founded, there would still remain a massive body of new matter. So extensive, orderly, and authentic a narrative of sensuous illusions is an invaluable contribution to the science of medical psychology. But that is not all: for this investigator has established the proposition that the whole of nature is reactive on the nervous system of man, on a breadth of basis which

cannot be shaken ; there being no matter, considering the thing as a discovery of fact, whether that influence be exerted through the medium of a new dynamide, or by the propagations of the well-known cosmical powers of matter. The idea of this proposition is as old as the doctrine of the macrocosm and the microcosm ; it entered into the conceptions of astrology ; it was a favourite with the Rosicrucians ; it was a grand point with Paracelsus ; it began to shape itself into a distinct hypothesis within the mind of the elder Van Helmont ; it at length derived a local habitation and a name from Mesmer ; and the affirmation of that unfortunate physician has now received immovable confirmation from the careful observations of Baron von Reichenbach. This will, of course, be understood to be said only of the bare and simple proposition stated above ; because, as for the hypothetical entities entitled animal magnetism or odyle, whether singular like caloric or dual like electricity, we reject it and its attendant speculations altogether :—until such not impossible evidence of its individual activity be discovered and brought forward as no experimentalist shall be able to withstand.

## GHOSTS AND GHOST-SEERS.

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IN all ages and in every country, mankind, when alike unguided and untrammelled by a definite method of investigation, has exhibited the tendency to believe in the existence of unembodied spirits in general, and in that of disembodied human ones in particular. Nor has this belief or half-belief always been dissociated from the supposition that such spirits occasionally visit or revisit the earth, making themselves sensible to people yet in the flesh. It is upon the records of such apparitions, indeed, that it rests its claims as a part of the popular creed of the world. It appears that both ghosts and ghost-seers are as plentiful and incontrovertible as ever. We are told that the force of public opinion, fashioned by the positive or rationalising spirit of the ignorant present time, renders some of the seers and believers in ghosts afraid, and others of them ashamed, to confess their experiences and convictions; but that there are multitudes of both these sorts of spiritualists in the society, of every grade and kind, of the miserable and sense-beclouded age in which we live. Moreover, not only did Plato, Pliny, Henry More, Donne, Matthew Hale, Samuel Johnson, Addison, and a host of other

worthies believe in such appearances, but there is actually a band of living authors on the subject. Among the Germans, Passavant and Eschenmayer and Ennemoser, to say nothing of Stilling and Kerner and Schubert, have all investigated this shadowy question in the character of believers ; and no one, who knows anything of the former three of these men, will deny the great ability and vast erudition they bring to the discussion of their theories, whatever may be said of the weak-eyed mysticism of Schubert, Kerner, and Jung-Stilling. Such is a brief statement of the most important fact of the existence of ghost-seers and ghost-believers, implying that of ghosts to see and believe in. Let us now take a glance at the other side of the subject.

There have always been Sadducees in the world, as well as in Jewry. There have everywhere existed Empirics, or men for experience, and not only in the schools of ancient Greece. It is these men who have ever been the bitterest enemies of the poor ghost. True to the sensuous instinct, which shapes their purely phenomenal science, they have impetuously rejected the conception of unincorporated finite spirits, as at once nonentities and impossibilities. Admitting only phenomena, as observed by the healthy sensation and the healthy consciousness of the race ; admitting only such phenomena, together with generalisations drawn from them, into their schemes of the universe, the appearance of incorporeal spirits to the sensibility of the human nervous system has infallibly and necessarily been excluded from their systems. This merely scientific generation of thinkers ignores the very evidence on the other side of the question as corrupted and useless ; ghost-seeing being nothing but a disease, ghost-seers are incapable of stating their own case in a trustworthy manner. There is

so much of truth in this way of thinking, that we find the ingenuous authoress of the *Night Side of Nature* confessing that, after all that has been experienced and written about ghosts and ghost-seeing, there is nothing like scientific evidence of the facts yet forthcoming. Full of faith and enthusiasm in the cause of apparitions though she is, she candidly allows that, so far as a scientific or empirical judgment is concerned, the whole subject still remains 'in the region of opinion.' Now the Sadducaic spirit gained the decided and all but supreme ascendancy over the mind of Europe in the course of the last century. Even those faithful souls who continued to hold by the mysteries of Christianity, and still more those who only thought they did or pretended to do so, acquired the habit of calling everything to the bar of concrete experience. Rationalism became the spirit of all criticism. Positivism was the exclusive methodology of the age. Wonders ceased, for everything was to be explained on natural principles. Miracles, witchcrafts, philosopher's stones, elixirs of life, powders of attraction, oracles and ghosts had been only dreams of the black night, or mirages of the grey morning; and they were now banished for ever from the horizon of life by the ascending sun of civilisation. This bringing down of every asserted thing to the measure of the sensuous experience of the age was easily put in execution upon ghostly apparitions. 'They were spectral illusions, they were coincidences, they were peculiar dreams, they were this and they were that. One thing was certain, at least, they were not ghosts. In fine, it became a mark of vulgarity to suppose for a moment that they could be spirits. Accordingly it is true that, to the present hour, very few people can find courage enough even to raise the question.

In the meantime, however, a change has begun to come over the spirit of the time. The positive, experiential philosophy of the eighteenth century has been questioned. Both its methodology and its results have been weighed in the balance, and, in the sincere judgment of the ablest men of the new time, found miserably wanting. Accordingly, all the pristine beliefs and objects of inquiry, which it had rejected with disdain, are now come in for re-examination. All its negative judgments are to be revised—ghost-seeing among the rest. Thoughtful men are no longer content with denial: they begin to see that the limited experiences of an individual, or of an individual age, constitute no criterion for those of another individual or another age. The best thinkers of the nineteenth century are becoming sceptics, in the sense of being considerers not deniers. The whole of society is as usual sharing the movement. There is a danger of the immethodical mind, indeed, swinging to the opposite extreme of unreflective credulity. Rash and incapable writers are showing the example of unlearning the lesson of the positive school or epoch, and going right back into the younger age, the more elementary school that preceded it. It is clear that the reconsideration of the ghost question is not now to be settled exactly as our grandfathers did it, and the views of their fathers to be left altogether out of the question, as if they, forsooth, had lived in vain. That were nothing less than a kind of dotage or second childhood of the human mind; a second childhood wanting the beauty, innocence, and boundless promise of the first. Nobody that understands the government of God, or perceives the ongrowing evolution of the destiny of mankind, can fail to perceive that positive science must be at least one of our guides in the renewed investiga-

tion of all this difficult and mysterious class of subjects. Not a step must be taken without it. It is because we lament to see this great principle wholly misunderstood among the mesmerists, oneirologists, and pneumatologists of Germany, France, America, and Great Britain, that we propose to devote a few pages to the discussion of the subject of ghosts and ghost-seers. It will furnish the reader with a clue to the method in which alone all such researches must be carried on, if they are to lead to satisfactory results; and it may also forewarn and forearm his mind against the rambling and unprincipled speculations of scientific fanatics.

Since, then, the inquiry is to be inexorably conducted on the inductive principle, let us begin with the facts of the case. Here it is once for all to be premised that the accurate and sufficient observation of the constituent facts of the universe is a most difficult, as it is an all-important department of science. Few people are aware of the extreme difficulty of the art of simple observation. That art consists not only in the ability to perceive the phenomena of nature through uncoloured eyes, but also of the talent to describe them in unobstructed and transparent words. To observe properly in the very simplest of the physical sciences requires a long and severe training. No one knows this so feelingly as the great discoverer. Faraday once said that he always doubts his own observations. Mitscherlich, on one occasion, remarked to a man of science of our acquaintance that it takes fourteen years to discover and establish a single new fact in chemistry. An enthusiastic student one day betook himself to Baron Cuvier with the exhibition of a new organ, we think it was a muscle, which he supposed himself to have discovered in the body of some living creature or other; but the experienced and saga-



cious naturalist kindly bade the young man return to him with the same discovery in six months. The Baron would not even listen to the student's demonstration, nor examine his dissection, till the eager and youthful discoverer had hung over the object of inquiry for half a year ; and yet that object was a mere thing of the senses ! In a word, the records of physical science are full of instances in which genuine researchers, men formed by nature and trained by toil for the life of observation, have misstated the least-complicated phenomena. Nor would the intelligent public not be amused, as well as astonished, if they only knew how very few of the noisy host of professing men of science, in even this matter-of-fact country, ever discover a single new fact ; ever describe with irreversible fidelity a new phenomenon of any significance ; ever add one true word to the written science of the world.

If, however, it be one of the hardest of problems to make observations with unbiassed simplicity and useful accuracy on inorganic nature, the difficulty is greatly enhanced when there are superadded the phenomena of vitality to those of chemical affinity, mechanical cohesion, and celestial gravitation, as is the case in the science of physiology. Mechanics is the science which was first brought to something like perfection ; and the reason is obvious, for the phenomena with which it is conversant are not only the nearest to the senses of the observer, but they are the least complicated in creation. Then followed astronomy in the process of time ; and then chemistry, the phenomena of which are still more complicated than those of the science of stars ; and it is clear to every thoughtful and competent mind that physiology is now awaiting the consummation of chemistry. When the vast complexity of the science of

physiology is considered with thoughtfulness, and when it is remembered that chemistry is still so far from perfection, that the chemist cannot construct a particle of sugar, or any other organic substance, although he knows the exact quantities of charcoal and water of which it is composed, the reader will not be astonished to find that M. Comte, the amplest yet the most severe representative of positive science that European influences have yet produced, speaks of the former department of knowledge as hardly yet within the bounds of positive science. He characterises it as just emerging into that sphere.

But there is a science more intricate still than the physiology of organisation. The phenomena of thought, emotion, and passion fall within the reach of positive observation in the direct proportion in which these phenomena are connected with the nervous system, or cerebro-spinal axis, of those organisms in which they transpire. Not to intermeddle with the question of phrenology, and to unite the most diverse systems, we shall for the meantime call this possible science by the name of physio-psychology. Its object is, or shall be, to investigate psychological or spiritual phenomena, in so far as such phenomena are dependent on the physiological condition of the brain, spinal cord, and nervous system. Something has already been done in this science, something in the way of facts by the medical psychologists, something by the phrenologists, and something in the way of formulæ by the metaphysicians; but very little after all. Still more than mere physiology, it is a science of the future. It is the most inextricable of all the physical departments; for not only are its phenomena complicated with those of all the other physical sciences,—physiology, chemistry,

astronomy, and mechanics ; but it also stretches towards, and lies in the light of another world than that of atoms. To make accurate and profitable observations in this sphere of inquiry must be the most difficult of all earthly tasks of the sort. If the observer in chemistry or botany requires to be a man of long experience, great patience, precision and freedom, the observer in this high domain must be one of extraordinary extent and profundity of knowledge, entirely liberated from the dominion of hypothesis and opinion, calm, clear, and belonging to the present day. It must be evident that this last requisite is essential. The names of Plato, Aristotle, Bacon, or Newton are of no authority in this region, for it actually did not exist to the scientific consciousness of the times in which they lived. In fact, every past observation or narrative that may seem to belong to this science, but which cannot be repeated to-day, must go for nothing. This is the rule in all the other sciences ; or rather they have needed no rule about it, but the heroes of these have instinctively begun anew, as soon as they have become the definite objects of conscious methodical inquiry. Now, it is precisely in this elevated and exceedingly complicated province of investigation that the question of ghosts and ghost-seers is involved. It is in this shadowy border-land betwixt physiology proper and pure psychology that apparitions wander, be these apparitions what they may. This is the sole haunt and region of all such questionable shapes. The amount of acquaintance with all the inferior strata of science, and the degree of skill in the disentangling of scientific intricacies, which are absolutely indispensable for anything like a successful inquiry in these perilous shades of nature, must be equally rare and extraordinary. It was quite impossible even to enter this field of research till the

present age, in the course of which the inferior sciences, as they may be denominated for the moment, have reached something like a consummation. Indeed it is probable, if not certain, that the physiology of the nervous system is not yet sufficiently advanced for the purpose under discussion ; although it may be time to be collecting instances, and classifying them for ulterior methodisation, just as physiology was begun long before chemistry approached perfection. The tenor of the foregoing observations is at any rate utterly to destroy the value of all former observations, that is, of all old ghost stories, in so far as anything like science is concerned. It is highly creditable to the author of the *Night Side of Nature*,\* which has suggested these remarks, that this principle is distinctly recognised in it ; and that even in connexion with the contemporaneous cases which are there related. Nor was this confession unnecessary, for this large and interesting collection of physio-psychological wonders is not a whit better than its predecessors in this particular respect. Its merit consists in the vivid, forcible, idiomatic, and memorable way in which it is written. It contains a fund of lively and somewhat impressive reading, and it will be very extensively read. But its scientific value is nothing. It wants dates, names, medical observations, circumstances, analyses of the physical and spiritual characters of the seers, as well as those of the narrators, and all those searching details which are necessary to a methodical comparison of instances. There is not a single point of solidity for the man of induction to plant his foot upon for the purpose of taking his first step. The whole fabric sinks away from him like clouds.

It is not to be concluded, however, that books of this

\* *The Night Side of Nature*. By Catherine Crowe. 2 vols. 1848.

sort are totally without value of any kind, although they are possessed of no utility whatever in relation to science. They may conduce to make the unscientific but profound impression on the mind of the reader, that there is some actual basis in nature for such things as they record ; such things as presentiments, warning-dreams, wraith-seeing, and ghost-seeing. The multitude of the cases narrated, their constant recurrence in all times and places, their extreme similarity in all sorts of local and temporary circumstances, and the fact that enormities of the kind are quite as rife in our own days, and in our own houses, and among our own friends, as ever they were, combine to indicate the great, broad, common under-ground of some vast and complicated order of neglected and misunderstood phenomena.

Although our rigour concerning the collecting of facts in this ambiguous science of physio-psychology cannot well be exceeded, and although as men of science we cannot relax our demands an iota in that respect, we are willing, with the help of faith and fancy as well as charity, to suppose that every word in such ghost-books is not only morally, but also scientifically true : we shall voluntarily labour under this illusion, until we shall have said whatever else is necessary to the understanding of the question that lies beyond the so-called facts. The reader will observe, upon the very threshold of this second department of the subject, that the mere fact of all these seemings or phenomena does by no means imply the theory either of spectral illusions or of ghosts. The conception of spectral illusions on the one hand, and that of ghosts on the other, are devices of the human mind, contrived for the purpose of explaining the appearances in question. The vast majority of those who read such books as the *Invisible World Displayed*, are no doubt

accustomed to think that, if the truth of the stories be established, there is no longer any room to doubt the visitation of spirits. They leap at once from the wonder to the ghost, not observing that the ghost is only one among many possible ways of explaining the wonder. The medical mind of this age, again, being acquainted with the fact of sensuous illusions in deliriums and other cerebral disorders, refers it as instinctively and as instantaneously to the illusion of the senses. The ghost of the vulgar and the spectre of the medical theorist are equally hypothetical. Neither of them is in the phenomena: they are both inventions of the mind perplexed by extraordinary appearances; they are rival hypotheses of the same fact. Two night wanderers see a high and glimmering light in the distance; one of them thinks it is on the top of a tower at sea, the other that it is upon the summit of an inland hill; the tower and the hill are the things they severally put under the flame in order to hold it up; by his separate supposition the mind of each understands the remote appearance, and he may guide himself accordingly. Both of them, however, may be wrong. It may be neither a lighthouse nor a beacon-fire; it may be one of many other things. It is precisely the same with the unusual appearances at present under supposititious discussion. They may be neither popular ghosts nor medical spectres. In these circumstances it may be neither uninteresting nor unprofitable to question both of these opinions somewhat closely; it will at least amuse the spirits, and exercise the speculative intellect, of our patient readers. In deference to the science of the day, and courteously presuming that they are the more likely to be near the truth, the medical spectres fall to be examined first.

In the healthy condition of the eye, the optic nerve, and

the brain, the phenomenon of sight may be represented in parts. There is first the visible object, say a tree, sending green and other rays of light to the surface of the cornea or first glass of the eyeball ; there is then that light so refracted within the eye, by its glasses, humours, and lenses, as to form an image of the tree upon the retina, precisely like that which is caught upon the white table of a camera obscura ; and, in the third place, this image is invariably followed by the perception of a tree. It is particularly to be observed that we do not see the image ; we do not suspect its existence till science discovers it ; and even after it is found out by anatomists and opticians, it is in vain that we endeavour to descry its tiny form. It is the tall pine, or the enormous oak alone that we behold. It can only be stated as an ultimate fact, that such a picture in miniature of a great tree upon the sound retina of an eye is the cause of the perception of the tree by the creature that owns the eye. To borrow from Hartley, and accept a hint from all the physical sciences of which anything is known, the process by which this stupendous result is effected may meanwhile be formulated as a vibratory movement instituted among the fibrils of the optic nerve and brain by the image on the retina, propagated from without inwards. This is not an explanation. It is not meant even as a hypothesis. It is employed solely as a formula, as a symbol, as  $x$ ,  $y$  or  $z$  is used in algebra. All that is positive in it is contained in the words *propagated from without inwards* ; that phrase resembles the little figure two or three in  $x^2$  or  $y^3$  ; and no one can object to it, for certainly, be the image's influence on the retina what it may, it is at least shed inwards.

Nor will this be thought a useless commonplace, when it is remembered that memory can reproduce the per-

ception of the tree as well as light; memory whether voluntary or associative. The eye shut, one can see the tree a second time. That second sight of anything formerly seen with the help of light is, in some circumstances, so vivid and lifelike as to puzzle the will. In the case of painters, and such as are possessed of delicate optical organisations, the lucidity of these secondary images is one of the inferior secrets of power. In truth, the second-seeing sensibility, of which this is a species, is the bodily essential of every kind of artist, from the poet round to the sculptor; and indeed of the man of genius in general. Now, as little is known of the mechanism of this wonderful process as of that of the first sight of things. Yet it seems very clear that it consists in part of the inversion of the latter one. It depends, in its physical contingency, on a vibratory motion (to speak algebraically again) *propagated from within outwards*: and, in the instance of any one object, first seen then remembered, on the *same* vibratory motion, that is, the same  $x$ ,  $y$  or  $z$ . The condition which seems to limit these images of the memory, at least among men as we find them, is a degree of clearness much inferior to that of direct sight. The tree of memory, the tree of the association of ideas, is generally but a faint reflection of that which the eye saw. The nearer they come to one another, there is the more of one element of the artist, for the poet is the 'lightly moved' as well as the all-conceiving man. In following out these hints concerning the physical nature of the poet, the reader must generalise for himself; for the present argument does not permit a digression from the organs of sense, and the remembrance or reproduction of their products. In Blake, the painter and mystic poet, this propagation from within outwards was so intense as to paint the



absent and the dead visibly before him. Whatever images he remembered in whole, or constructed out of parts drawn from memory, reached the retina from within with outlines so clear, light and shade so unmistakable, and colours so true that he could not but believe that he saw them face to face. It was in this way that Sir William Wallace, King Robert Bruce, and several of the heroes of antiquity stood before him while he painted their portraits with equal innocence, enthusiasm, and poetical fidelity. There is a poet in Edinburgh, who not unfrequently awakes with the remanent image of some scene from dreamland in his eye, and it is some time till it evanesces. In fact, everybody has experienced this sort of thing, if not in health, at least in delirium ; if not awake, at least asleep. There is a state of nervous system brought on by the long and inordinate use of alcohol, in which the unfortunate victim cannot disentangle himself from these images of the associative principle or the involuntary memory. He cannot distinguish between the real objects around him and those second-sights of his ; and he is actually more loyal to the latter, as might be expected in a morbidly self-sensitive frame of body. The case of the maniac needs scarcely be added to these illustrations of the inverted identity of second and first sensations of things in their purely physical contingencies ; for it is only of these contingencies that there is any question at present. Lastly, there is that peculiar condition of the system, in which a person apparently in good health, but in reality disordered, however obscurely, is visited by what are more ordinarily called spectral illusions. There are innumerable cases of this sort on record. Abercrombie and Hibbert, Ferriar and Macnish, Feuchterleben and Combe, and, in fact, the medical psychologists of every

age and country, are full of them. Every reader is familiar with them. Suffice it in this place, then, that these illusions are different in no essential respect from those of mania, delirium tremens, common delirium, and dream. Nor do any of them differ materially from the landscapes of the Edinburgh poet, or the unwearied sitters of the happy Blake. There is in reality no difference in kind between all of them together, on the one hand, and the dimmest instance of second sight or remembered sensation that ever transpired in the brain of a clodpole on the other. The latter could be converted into the like of any one of the former by the modification or intensification, in this degree and in that, of the  $x$ ,  $y$  or  $z$ , *propagated from within outwards*. In a word, let  $x$ ,  $y$  or  $z$  be exalted in tension to such a degree as to equal the vividness of an actual image in an ordinary and healthy man, and there is furnished the physical condition of a sensuous hallucination ; and that whether the intensification be produced by the abatement of other influences, as in dreams ; or by actual inflammation, as in mania or delirium ; or by compositions of these two, as is likely in all the other examples. Such, in fine, is the fact and the theory of the medical spectre, and it is now time to see how it confronts the popular ghost.

It is evident that the employment of this well-known fact and principle of the sensuous illusion, for the purpose of explaining away the innumerable narratives concerning spiritual apparitions that are current in the world, is both feasible and ingenious. It is the first thing that occurs to the scientific mind indeed ; and there is no doubt that the more a physician or psychologist is acquainted with the boundless variety of disease in general, and of morbid nervous manifestations in par-

ticular, the more will he cling to this solution of ghost stories. It is at once his instinct and his habit to hold by analogy, and to render the unknown intelligible by union with the known. The popular mind perceives or reads about an apparition, and at once concludes it is a ghost, without reflection worthy of the name, without definition, and therefore without intelligibility. The medical denier has a great advantage over the credulous layman. His opinion is pronounced with some reflection at least, even if it eventually prove to have been too little; it contains a well-defined conception, and it is perfectly intelligible. But although it is clear and considered, it is quite possible that it may be wrong; and that either in the way of being altogether irrelevant, or in that of being only part of the whole truth of the case. This can be determined only by a rigorous induction of instances; but we have already expressed our opinion, along with good reasons for it, that there is yet no set of observed facts in this region of inquiry worth a single straw in the estimation of inflexible science. Accordingly our task as critics is, properly speaking, at an end, for no more can be said upon the subject till some one compare before the public with an orderly and definite edifice of new observations. But we are to suppose that ghost stories are not only founded in truth, as they undoubtedly are, but that the popular accounts of them are circumstantially correct; a thing which nobody who knows anything of the history of the scientific statement of the facts of nature will ever believe. Be it as supposed, however, for the sake of discussion.

The simplest, and perhaps the most beautiful kind of the narratives under review, is that of wraiths. Can the medical spectre explain the wraith? The ordinary manner in which the wraith is said to be seen is very

affecting. One dies, or is killed by accident, or is murdered ; and at the very hour in which his dissolution is transpiring, an image of him flits before some absent friend in another city, in another country, or even in another quarter of the globe, who knows absolutely nothing of the circumstances of extremity under which the sufferer succumbs.

‘ Very lately,’ says our modern lady-patroness of the world of spirits, ‘ a gentleman living in Edinburgh, whilst sitting with his wife, suddenly arose from his seat, and advanced towards the door, with his hand extended, as if about to welcome a visitor. On his wife’s inquiring what he was about, he answered that he had seen so-and-so enter the room. She had seen nobody. A day or two afterwards the post brought a letter announcing the death of the person seen.’\*

‘ Mr. H., an eminent artist, was walking arm in arm with a friend in Edinburgh, when he suddenly left him, saying, “ Oh, there’s my brother ! ” He had seen him with the most entire distinctness, but was confounded by losing sight of him, without being able to ascertain whither he had vanished. News came, ere long, that at that precise period his brother had died. . . .

‘ A Scotch minister went to visit a friend, who was dangerously ill. After sitting with the invalid for some time, he left him to take some rest, and went below. He had been reading in the library some little time, when, on looking up, he saw the sick man standing at the door. “ God bless me ! ” he cried, starting up, “ how can you be so imprudent ? ” The figure disappeared ; and hastening up stairs he found his friend had expired.’†

\* *Night Side of Nature*, vol. i. p. 240.

† *Ibid.*, vol. i. pp. 237, 238.

Such are the appearances called wraiths. They seem to steal along the streets, and into the freestone houses of Edinburgh, as numerous as they glide up Highland glens, and hover around Highland shielings. It is said that there is a venerable man of science in Great Britain, a man of European reputation, who never loses a friend, or even an intimate acquaintance, but he sees a 'fetch.' We never saw such a thing, nor did we ever hear anybody say he had ever seen one; but everybody seems to know somebody who knows that somebody else has done so. In fact, the examples of this sort of thing which have been published are not few, and those which are withheld from publicity by the fear of enlightened opinion are quite innumerable, it would appear. It is upon the number of cases, in truth, and on the complete similarity of them all, that belief in them can be most securely grounded. If there were only a few instances, they might be attributable, by the doctrine of chances, to coincidence. It is with the aid of the conception of coincidence, indeed, that Hibbert and the medical theorists explain them away. Nor can it be denied that, until it be known how many unsubstantial images of absent friends are not coincident with the deaths of these friends, it cannot be demonstrated that the number of coincidences is too great for the doctrine of chances. The synchronism of the apparition with the hour of death is the important point here, and it is the only one. Yet no man is in a condition to settle it scientifically; and it never will be settled until all the apparitions of absent friends, occurring during a given time throughout a given population, shall be collected, and until the number of these which were coincident with deaths be thereafter determined. The proportion of the coincidences to the negations will show whether the former can be compre-

hended under the doctrine of chances. Until this vast and difficult collection and comparison of instances be undertaken and completed, no scientific judgment can be pronounced. Does this seem to be too great a demand of evidence? Let the reader consider the enormous schemes of observation which are necessary to determine astronomical results. Let him remember how many long years of toilsome experimentation is necessary to the establishment of some central fact in chemistry. Yet these are physical subjects, and not once to be compared in intricacy with the occult phenomena of that manifold epitome of nature, the body of man. Nor would such an enterprise be hopeless if it were an attainable one, for the positive number of coincident cases (while nothing is known concerning their comparative number) is apparently so great as to insinuate the suspicion that the apparitions are actually connected with the deaths of those who appear. This is all that can be claimed, indeed; but we are quite forgetting that we have agreed to consider everything in these narratives as if it were already proved.

It is clear, then, that the present theory of sensuous illusion cannot explain, for it does not embrace, the connexion of the decease of the absent, and sometimes very far distant person, with the appearance of an image of him at that very time. If the apparition of Mr. H.'s brother was a spectral illusion, why did that illusion come upon the survivor at that particular time? This is generally thought a triumphant question by the believers in ghosts. But it is not so. It only shows that, on the gratuitous supposition that the coincidence is not mere coincidence—a supposition which has been made for the sake of the argument—sensuous illusion is not the whole of the phenomenon. It may still be a part of it; and

we shall return to this conception in the sequel,—the conception, namely, that wraiths, doubles, and ghosts are all spectral illusions, *combined with something else*. But it is necessary first to discuss the popular theory of all these things, or rather the imaginative solution of them, which pretends to be a theory in certain high places ; for it is by no means confined to the vulgar, as has already been hinted. It is even beginning to swagger like a young science ; it is learning the use of big resounding words ; it is arming itself with something like a technical nomenclature ; and, in a word, we must fight it.

The popular conception of a spirit, then, as it has been more artistically if not more scientifically figured by people of refinement, is the following ; or rather something like it, for it is not easy to describe the vague and indefinite image now under consideration. It seems to be essentially dependent on the division of a man into three parts—body, soul, and spirit. This analysis is almost universally made by the popular mind, and it is very ancient. Professor Bush has made an elaborate induction of all the anthropological language of the Old and New Testaments, and has come to the conclusion that it is implied in the Bible. Guided by that induction, considering that it is the part of the Scriptures to teach the true view of the constitution of man, although astronomy, geology, and medicine are beyond their province, and availing himself of some of the questionable results of modern science, that fanciful orientalist has fashioned the popular notion of a human being into a proposition. He represents the shapeless spirit as embodied in the soul, an ethereal entity affecting the form of the body ; and that soul, with its indwelling spirit, as incarnated in the body. Proceeding from without

inwards, there is the body first, then the etheriform soul, and lastly the spirit. On the death of the body, there remains this unfleshed, psychical frame, invisible to the ordinary eye; but it is visible to some peculiar individuals, or to some peculiar individuals when in a peculiar state of nervous system; or it is perceptible by a supposed universal sense in them, and thence translated into the visible species of that general sense: for there are endless refinements and subtleties among those adventurous men, who, in a thing of sheer concrete science, if ever such thing were, abandon the method of positive observation, and give themselves over to system-building.

This view, if it could only be admitted with all its suppositions within suppositions, 'laborious orient ivory sphere in sphere,' would of course explain the whole Night Side of nature at once. It is the popular one invested with the pomp and circumstance of technicality. It is that which is implied in the pneumatology of Swedenborg, that greatest, purest, most accomplished, and most philosophical of hallucinators. It is that of the somnambulists of Mesmer and his disciples. It is also that of the poets. English literature, to say nothing of the ancient and foreign muse, abounds in descriptions of this psychical configuration; for we will not call it a spiritual body, simply because it does not seem to find any countenance whatever in the prophecy of St. Paul. It is the legitimate child of poetry; and lying in the bosom of its mother, it is not without its beauty. Take Shelley's graceful picture of the soul of Ianthe,—

Sudden arose  
Ianthe's soul; it stood  
All beautiful in naked purity,  
The perfect semblance of its bodily frame.



Instinct with inexpressible beauty and grace,  
 Each stain of earthliness  
 Had passed away; it re-assumed  
 Its native dignity, and stood  
 Immortal amid ruin.  
 \* \* \* 'twas a sight  
 Of wonder to behold the body and soul.  
 The selfsame lineaments, the same  
 Marks of identity were there;  
 Yet, oh how different!

It is painful to disturb this fair image, and torment it with all the vulgar and inexorable tests of physical science. Nor shall we do so. Let it live for ever in the consecrated home of the imagination. It is not this fine ethereal creation of the poet that is to be questioned; it is the thin etheriform fabrication of those who believe in ghosts. It will be interesting to all, and useful to some minds to see how all the conceivable modifications of this view can stand the scrutiny of physical and psychical science.

It is very obvious, then, that if these so-called ghosts or psychical bodies be anything at all, they must be either material or spiritual, unless some third kind of existence can be demonstrated to be actually in the universe. If they be material, they must be solid, liquid, or gasiform; or at least one of the modifications or combinations of these forms of matter. In truth, it is subsumed even by the ghost-mongers, as they are called by Archdeacon Hare, that they are neither solid nor liquid, so that the gaseous or vaporiform shapes are the only ones that remain for them. Now vapours or gases they cannot be, for these simple and irresistible reasons. Neither a gas nor a vapour can permanently bound a figure, even of the most irregular or cloudlike species, within our atmosphere. There is a principle of diffusion which

forbids it. Two masses of aeriform matter brought into contact with each other cannot remain so; they instantly begin to melt away into each other. Dalton discovered many years ago that one gas acts as a vacuum to another, and Mr. Graham has determined the rate of that kind of mutual dissolution with his wonted precision. There is no exception to the law; and the most beautiful and beneficent one it is, for it is the virtue of it that the carbonic acid of the atmosphere does not sink below the oxygen and nitrogen, like water below oil, and suffocate the organic kingdoms of nature. A man made of air could not consist in integrity for one moment in an atmosphere of any sort whatever; and the more ethereal the thin substance, which such a figure might be assumed to be composed of, the more rapidly would it vanish. Nor would the incoherent speculator improve his position by insinuating that there may be, or even that there probably is, a finer kind of matter than even hydrogen, the lightest of the gases; for the etheriform body thus invented were only still more strictly subject to this great ordinance of the Creator. ] On the other hand, it were to be surmised by 'those of the opposite faction,' that the force of vital affinity might possibly raise their favourite images above the control of a physical rule, just as the vital force of the body of flesh renders it apparently not amenable to the laws of chemical decomposition, the new defence would be no better than 'a weak invention of the enemy.' Organisation does not defy chemical affinity at all. It only unites with it in the production of proximate principles, which do not indeed exist in the mineral world, but the composition and constitution of which are strictly regulated by chemical forces and proportions. Does its vitality hinder a plant or an animal from being burnt to ashes? Do not

oil of vitriol and caustic proceed at once to destroy the stoutest organisation in the world? Can the power of life interfere with a man's falling with accumulating velocity to the ground, if he trip himself upon the edge of a precipice? In one word, the vital forces operate always in consentaneity with, never in opposition to, the laws of chemistry and mechanics.

Supposing these 'erring and extravagant spirits' to be composed of spiritual substance, to use the correct phraseology of the Westminster Divines, the difficulty of the ghost-lover is only enhanced. A part of the essential definition of spirit is the simple negation that it is insensible. It cannot be literally seen, else it is not spiritual. But our ingenious English authoress seems to conjecture that the spirits of the dead have the power of investing themselves with an ethereal body of some kind, which they cannot maintain for any length of time, and so it speedily vanishes. She appears to think that a supposition of this sort is necessary in order to explain the dress of the poor soul who visits the pale glimpses of the moon most usually, if not always, 'in his habit as he lived,' the ghost of a robe or of a scroll of paper being too much of a good thing even for the eye of an enthusiast. If we have understood our authoress in this, it must be said at once that it is nothing short of induing a finite creature with an infinite or Divine power; but the opinions in the work under review are so shadowy and intangible, except when daily human nature is the subject of them, that we cannot be confident of having in this instance seized the meaning of our eager opinionist. Perhaps there is meant to be expressed, in the passages referred to, another conjecture, which we remember to have seen in an article on the Seeress of Prevorst some years ago. That hypothesis was to the effect that a departed spirit may

have the power of communicating an impulse to the spirit of a living man, not through his senses, but without any bodily mediation at all, and that such an impulse acting from within outwards on the brain and nerves of sense, might fashion a spectral illusion, which would in this way have its foundation in reality, although, so far as the eye were concerned, a sensuous illusion. This is the only clear thought we have ever met on the ghostly side of the question. The Christian, and the disciples of that school of theanthropists, of which Emerson is an excellent example, as well as all poets, entertain the assured belief that God works upon man while yet in the flesh otherwise than through his senses, and without any corporeal mediation whatever. With all the force of that great truth in its favour, the difficulties in the way of accepting this view, even as a just conception, are quite overwhelming. In the first place, God can mould and change the creatures of His might as He wills ; almighty power, and almighty power alone, exalts the possessor above law. The poor ghost must work in sweet consent with the laws of God, or else not work at all. In the second place, God never operates through the spirit of man in the way of producing sensuous illusions, excepting of course in the sense in which every illusion, as well as every reality, is the work of the Divine Being ; so that the analogy is only the ghost of one after all. Again, a finite spirit has no part in space. God is everywhere, or rather everything is always present to Him ; but everything is not present to the finite spirit. The finite spirit is not everywhere. Place cannot be predicated of it, till it be re-embodied ; and it has been shown that it is not re-embodied within our atmosphere. Yet the ghosts of Kerner, Cahagnet, and all the authors on their side of the question, infest particular places, as well as come at

particular hours, and frighten particular people ; the people being generally either in a visibly morbid condition, or the members of ghost-seeing families, the hours twilight and the witching time of night, and the places being houses where terrible things have some time or other transpired. Accordingly, the subtle supposition we are now contesting can find neither the support of a single analogy in the domain of ascending science, nor the countenance of one definite idea in philosophy. Experience in the other regions of human inquiry, the understanding of the individual, and the common reason of the race, combine to disown it. Nor must it be forgotten, in addition to these irreversible considerations, that the burden of proving all the fantastic conjectures, which have just been examined, lies with those very inventive people who construct them, and those very easily contented ones who give them welcome to their minds.

There has been only one other view of these ghosts referred to. It is possible, or rather it is probable, that such analysts of man into three elements as Professor Bush may maintain the opinion that there are three kinds of substance in the universe. It may be suggested that there exist not only matter and spirit, but a substance which is neither of them. It is almost implied in the partition of human nature into body, soul, and spirit, that there is such an entity as psychical substance, the substance of which the supposed soul is made ; using the word 'substance' in its philosophical sense, of course, and not in its popular one. No one, however, has been careful to define such a substance ; for it is no definition to say that a thing is not matter and not spirit. As the definition of matter is not that it is the negative of spirit, and as that of spirit is not that it is the negative

of matter ; but as each of these two substances has its positive qualities in addition to those which inhere in it as the opposite of the other, so we await the affirmative definition of this hypothetical thing. The question cannot be entertained till a positive definition be forthcoming. Yet it is needless to hold the willing disciples of these discoverers in suspense ; for it is as evident as anything can be that, be it eventually defined and qualified as it may, the very same objections as apply to the supposition of a spirit's direct or indirect appearance to a bodily man, withstand that of this conjectural frame, composed of any conjectural psychical substance whatever. It may be just as well perhaps to suggest to the young or untrained inquirer our own belief—it would sound uncharitably to say our certain knowledge—that the psychical body, or nerve-spirit, or whatever else these new scholars may choose to name it, is nothing but the abstract conception of the phenomenal unity or *tertium-quid*, which results from the combination of the body and the spirit, and that concentered for the understanding by the fancy. It is like the phlogiston of the old chemists, a fictitious thing endowed with incredible no-properties ; it is like the caloric of the new ones, a supposititious substance invested with qualities the most unsubstantial. Nascent science is prone to the suffiction of entities where entities are not required ; but popular opinion is incomparably more so, and especially the opinion of people possessed of more sensibility than judgment. It is particularly to the purpose, also, in the present instance, to observe that the most judicious are apt to be bribed into inconsequence when the heart is retained on the side of nonsense in the Court of Common Pleas. Our English writer, for example, is enamoured of her revenants and restants, because they convey the

dear assurance of a world to come to her soul: The purpose of the *Night Side of Nature* is the conveyance of that blessed conviction to other minds. The motive principle of all her sedulity and eloquence is a highly honourable one, but it is mistaken. He who spake as never man spake teaches in another way: 'If they hear not Moses and the prophets, neither will they be persuaded though one rose from the dead.' We trust, however, that our enthusiast is really accustomed to rest her hope of immortality on grounds which are deeper and more immovable than these phenomenal and outward shows. Many people, and especially women, believe the great doctrines of humanity in the right way, while they argue for their belief in a wrong one. Like children, soft and true, they stand as firmly on the ground as they need to do, although they know nothing of the law of gravitation.

What then is to be said about all these strange stories, drawn from nearly every age and country? Rejecting the spectre-theory as insufficient, always assuming for the sake of discussion that there are no fallacies of narration about them, and dismissing the ghost-theory as incoherent, where shall one find a clue to the perplexity? Wisdom unites with the past history of science to warn the investigator against premature hypothesis. The facts must first be determined with experimental severity, and then co-ordinated with the slow care of the naturalist, before the dynamics of the inquiry can be approached with hope. The world must learn to wait. It waited four thousand years for Kepler and Bacon, and still longer for Dalton and Kant; and neither the scientific nor the philosophical spirit of the present age is nearly ready to expiscate the secret process of these wonderful phenomena. We are serious, for

it is a grave subject. There are things related simply, soberly, and with great show of evidence, in the three works now before us, which the ingenuous mind cannot dismiss with either a smile or a sneer; which the man of science can neither explain, nor explain away; which the philosopher can no more deduce from his ideas than he can assimilate them with his system.

*The Seeress of Prevorst* has been long before the German public, and is written by Justinus Kerner, a painstaking physician, a lyric poet, somewhat of an idealist in philosophy, and a pious Christian of the evangelical school. It was introduced to the British reader a few years ago by an English gentlewoman, widely-reputed for her novels of remorselessly real life, at that time a thorough realist in philosophy, and a person whose goodness has never assumed the form which is ordinarily called piety at all. Kerner is a good, honest, learned soul; of a considerably attenuated constitution of mind, but possessed of a heart overflowing with love and courage. His translator, on the other hand, is one of the shrewdest of women, remarkable for common sense in common things, and prone to naturalism, even now that she has donned a little mysticism, and become the authoress of the *Night Side of Nature*. Yet the lyrical physician of Weinsberg and the English novelist do touch one another at several points of their respective characters. They are both independent of every earthly consideration but their convictions of the truth. They are equally eager for the investigation of any new facts, in how questionable a guise soever they may come, which may perhaps let in some more light upon the darkness by which they both feel, although standing in such different points of view, the mystery of life to be encompassed. In fine, they both love the wonderful. As for



the work itself, it is by no means an easy task to give an account of its contents. It is the detail of a multitude of singular phenomena displayed during years of suffering, evidently from some radical derangement of the whole nervous system, by Frederica Hauffe, a native of Prevorst, in the Highlands of Wirtemberg. It is beaded with numerous citations from Plato, Van Helmont, Schelling, Ennemoser, Eschenmayer, Böhme, Swedenborg, and other distinguished mystics in philosophy and theology. The story of the poor creature appears at first sight to countenance the reality of many things, which the positive science of modern times has either swept away, or explained upon well-known natural principles. The seeress was visited by presentiments which seemed to be subsequently verified ; she had dreams which were apparently fulfilled ; she saw into the human frame, describing the nerves of the body, and prescribing for herself and others with something like success ; and she drew without instruments the most accurate and complicated of spherical diagrams in order to express some of her unique experiences. She was attended by a guardian spirit, who solaced, guided, and protected her ; having ministered so particularly to the down-smitten patient as to withdraw hurtful objects from her neighbourhood. The law of gravity was suspended in her favour, and it was in vain that her attendants attempted to keep her under water. In addition to all these marvels, she sang extempore hymns, and spoke in unknown tongues. In a word, the whole case, as stated by Kerner, involves the reality of prophetic dreams, amulets, the swimming of witches, the apparition of departed spirits, a possible communion on the part of men with the innermost secrets of inorganic nature, and the gift of tongues. But above all, the seeress revealed, and Kerner believes, that the

world of spirits is interdiffused through the one we inhabit. She conferred with angels, saints, and woful spirits face to face.

Our readers will smile at all this ; and so do we, but it is not with disdain. It is with eager curiosity to know the real meaning of such things. This is not the first nor the fiftieth instance of this sort of narration. M. Cahagnet's *Arcanes* is a work of the same kind ; and he seems to be an ingenuous creature too, belonging to the French or rather the Parisian school of scientific, as Kerner is a disciple of the German school of philosophic mystics ; using the substantive term not in its old Greek meaning, but in its new sinister signification. The authoress of the *Night Side* is a great accession to the cause of Kerner and Cahagnet. She has furnished the most readable book of the three. Although all the speculative portions of the work are simply incoherent, the religious and moral observations in it are frequently excellent, and all the narrative is first-rate. Its merits in the last respect will secure it a very large number of readers. Such is this segment of the literature of angelology. There has been no need of making extracts from it, for really everybody knows the sort of things which are woven into stories of ghosts, doubles, and haunted houses, so that these books will replenish the memory quite as much as they will occupy the attention.

Although, however, it is not easy, nor perhaps possible to propose a rationale, which should reduce the chaos of this physio-psychological department of inquiry to order and intelligibility, it may not be so difficult to indicate the directions in which light is likely to arise upon it. As the subject is distinctly of a twofold character, and lies in the twilight rather than in the night of nature, there are two quarters on which the investigator must

bend his cautious eye. There is the fact of sensuous illusion, not necessarily confined to the sense of sight, but extended to those of hearing, and even of touch, which is manifestly never absent in these phenomena ; and there is the unknown fact or process, which initiates such more than ordinary illusions, and renders them so specific and determinate that they are sometimes presentimental, sometimes representative, and sometimes retrospective of actual future, distant, or past persons. It is not impossible that the unknown quantity in the equation is to be found in the region of nervous sympathy. The doctrine of sympathy and antipathy has fallen into too much neglect among the regulars of science. It feels too mystical for the sensuous and numerical spirit of the present stage of positive research, a spirit so statical and even gross, that it is remarkable to find that no one has proposed the supposition that the force of gravitation is a new imponderable. ' This too too solid flesh,' is impeding the development of those more dynamical notions of nature, which have notwithstanding begun to germinate within the more logical minds of the time. The notion of one nervous system acting upon another at a distance, or otherwise than through the five senses, is hardly admitted in these days. Yet Bacon not only believed in such a thing, but proposed experiments to limit and determine its results. That great clear-seer, we remember, suggests among other things that two lovers should record all the critical movements transpiring within them during a time of separation, and afterwards compare their notes and dates with a view of discovering whether they seemed to have been affected by one another. It is unfortunate for this proposal that the fact of conscious observation of one's-self is the death of true emotion ; and it is little short of monstrous to

think of a soft, spontaneous woman, her heart almost in pain with budding hopes, with her note-book on the pillow beside her wakeful little head, to write down the minute, hour, and day of this tender agitation, and of that, in the radiance of a rush-light. But the Baconian or scientific apprehension of the physio-psychological relation between absent friends is not necessarily absurd.

If some great catastrophe were to take place within the limit of the sun, the shock would be communicated to the earth, which would answer the appeal to its gravitative and other cosmical sympathies. But what if sun and earth had been a pair of palpitating, mobile, vibrant, nervous systems, the organs of sensations that stretch through countless solar systems and many a firmament, the ministers of 'thoughts that wander through eternity,' the vehicles of emotions that embrace Almighty God?—Nor is the application of this illustration to the wraith, to take the least complicated case of ghost-seeing, very far-fetched. The brother of Mr. H. is dying, the last great change is passing over his frame, it is being shaken into the dust again. The excellent painter, a man of the most tremulous sensibility, unweeting of the dire catastrophe that is rocking the fraternal nervous system to the centre, is yet interiorly and secretly commoved by the event; but he does not understand or even observe the latent trouble of his marrow, until it throw itself down upon the eye as a spectre, and he exclaims, 'There is my brother!' It is more difficult indeed to put this construction upon the stories of haunted houses, and some of the other curiosities of literature, which are faithfully narrated by our German, French, and English authors. Nor is it either necessary or advisable to do so, for we have no theory to support; even

in the instance of the wraith we are but sceptics in the sense of being considerers ; and it was our present purpose to do no more than offer a hint to minds more inquisitive than our own. As to the ultimate solution of the question, it is, at all events, our assured belief that it will never be effected until some great and comprehensive medical psychologist, not of the merely phrenological, not of the purely psychological, but of the physio-psychological school, shall devote a lifetime to its investigation. A lucid thinker like Feuchterleben, with equally vast stores of information, equally catholic canons of criticism, and equally enormous learning, but with more originality of spirit, with more of that poetic quality by which all great discoverers have been notoriously distinguished from the erudite artisans and the busy dilettants of science, with more imaginative insight, would find this sphere of research full of noble results. So extensive and perplexed indeed is the whole subject, that the union of two energetic researchers, one of them a physiologist, the other a philosopher, and both psychologists, a pair of men like Reil and Hoffbauer, would render us still more sanguine of the speedy clearing up of the mystery. At all events, it is with students like these alone that we are willing to leave the inquiry ; and we do so with hope.

There is one conclusion, however, to which the wisely sceptical student of ghosts, spectres, prophetic dreams, presentiments, clear-seeing, and the like, may come without waiting a single day longer ; and it is one of such urgent importance, in our opinion, as to demand immediate attention. If morbid sensibility renders the connexion between a human nervous system and nature, as well as betwixt one nervous system and another, so delicate, searching, and far-extending, what would be the results to the individual, and the race, if there prevailed throughout

society a pure, wholesome, and natural susceptibility to every kind of physical impressions? For surely no one will deny that man is still very far from the realisation of his ideal condition. He does not fulfil the law of his nature. He is nowhere perfect in his kind, in the manner and degree in which, for example, the wing-footed red-deer of the Scottish Highlands, or those whirlwinds of unmounted steeds that sweep the plains of South America, or the self-relying lion of Zahara is perfect, each in its kind. Even the daisy, or our still more favourite flower, the blue-eyed speedwell, is enabled to show forth all its little capabilities, and it is complete: but man is neither what he should be, nor what he shall become. To speak only of the lower ingredient of his constitution, it appears that his very nervous system does not habitually attain to anything like a free and a full manifestation of the wondrous properties lying latent within its round. All men, considered merely as so many cerebro-spinal axes, are maimed and defective. They all want something that belongs to them. Like Harry Bertram in the romance of *Guy Mannering*, they do not know the fields that are their own, their ancestral rights, nor yet the small voice of nature that stirs their hearts into remembrance. Nor is there any room for wonder. Think of the enormous amount of hereditary, chronic, and lurking disease in the world. Consider the vast consumption of tea, coffee, alcohol, tobacco, and opium; remembering that the taste for all of these drugs has actually to be acquired, even by otherwise unnatural creatures like the men and women of the present day, and that taste is therefore not congenial with the paradisaic instincts of ideal man. Examine the very meats which the flaccid genius of dyspepsy has invented. Count the hundred spices and impurities by which the fine edge

of ordinary sensibility is blunted and torn. Recollect the extent to which night is universally turned into day. Take particular notice of the excessive and exclusive cultivation of the mere muscle of the body in one class of people, of the mere stomach and lungs in another, of the mere nerves of superficial and sentimental sensibility in a third, and of the mere miserable brain in a fourth, and so on. Think, in fine, of everything in the daily life of Europe that is calculated, if not intended, to thrust man out of harmony with all the finer movements of nature on the one side, and of his own unfathomable soul on the other. Nor can anybody claim exemption from the rule. Be one ever so wholesome in physical living, ever so virtuous in moral conduct, and ever so generally cultivated in mind, it will avail him only a little ; but that excellent little is worth a world of self-denial. The disorder, the dulness, and the perversion of the native sensibilities of the frame, are distributed through the whole race by marriage, as well as by example and consent. Civilised language contains at least one significant indication of the fact : When there appears among men a person of extraordinary sensibility to the more sacred influences of that temple of nature, in which they are changing money more than serving like priests, they call him a genius, leave him to shift as he can, and let posterity discover that he was the most genuine man of them all. Ay, and so bad is the horrid imbroglío of custom, that no sooner does a soul come into the world in such an organisation, than he is entangled in the habits of society, and, falling from a greater height, he frequently sinks lower than the lowest.

Everybody knows, of course, that a more penetrating and better-tuned sensibility is only one of the coefficients of genius ; it is the immeasurably, and even the incalcu-

lably inferior of the two ; but it is the only circumstance of creative power over which anybody has daily control. Let it then be seen to. There is no saying what a few ages of simplicity and equable culture may effect. That eloquent analyst Isaac Taylor has shown how greatly the mere exaltation of the present qualities of the nervous system of man would add to the felicities of the intellectual and emotional life in heaven. It is more to the purpose to assert it will do the same on earth. It will bring him closer to the heart of nature. It will extend, deepen, and ennoble his whole being. It will gradually restore him to his abdicated sovereignty over creation. It is therefore the duty of all men to work, individually and together, towards this consummation among others, namely, the immediate attainment of as high a strain as possible of physical purity. There are, indeed, things of higher value, but this is at once the most substantial and the most becoming of foundations, for the erection of every grace that is more excellent still. Nor are we unwilling to avow our conviction, that a far-spreading and thorough reformation of this sort is destined to approve itself as one of the signs of a thorough and far-spreading millennium.







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